SEQUENCE LISTING

<110> EDELMAN, LENA
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BRIAND, JEAN-PAUL

<120> CHIMERIC MOLECULES CONTAINING A MODULE ABLE TO TARGET SPECIFIC CELLS AND A MODULE REGULATING THE APOPTOGENIC FUNCTION OF THE PERMEABILITY TRANSITION PORE COMPLEX (PTPC)

<130> 02356-0083

<140> 10/627,649
<141> 2003-07-28

<150> 60/265,594
<151> 2001-02-02

<160> 325

<170> PatentIn Ver. 2.1

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<212> DNA
<213> Artificial Sequence

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nucleotide sequence

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Asn Tyr Leu Gln Cys Gly Gln Val Ile Lys Asp Ser Asn Leu Ile Cys
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Gly Ala Ile Ile Asp Leu Thr Asn Thr Ser Lys Tyr Tyr Asp Gly Val
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His Phe Leu Arg Ala Gly Leu Leu Tyr Lys Lys Ile Gln Val Pro Gly
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Gln Thr Leu Pro Pro Glu Ser Ile Val Gln Glu Phe Ile Asp Thr Val
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Lys Glu Phe Thr Glu Lys Cys Pro Gly Met Leu Val Gly Val His Cys
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His Thr Leu Gly Ile Ala Pro Gln Glu Ala Ile Asp Arg Phe Glu Lys
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Cys Pro Arg Gly Ile Glu Pro Arg Asp Pro Thr Asn Pro Pro Leu Trp
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Cys Leu His Glu His Val Leu Tyr His Lys Leu Tyr Ile Leu Asn
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Cys Arg Arg Pro Trp Pro Arg Thr Gly Pro Val Gly Arg Ala Leu
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725 730 735

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1805 1810

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1815 1820 1825

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Val Arg Ala Lys Ile Lys Phe Ser Ala Ser Leu Tyr Leu Asn
1830 1835 1840

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1845 1850 1855

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1860 1865 1870

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1875 1880 1885

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1890 1895 1900

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1905 1910 1915

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Ser Ser Leu Ser Leu Val Tyr Asn Leu Asp Val Asn Thr Leu
1920 1925 1930

aat aaa gct tgg aca tat tta aca tcg ggc gtg tta gct tta tta 6099
Asn Lys Ala Trp Thr Tyr Leu Thr Ser Gly Val Leu Ala Leu Leu
1935 1940 1945

ggc cga tta tcg tcg tcg tcc caa ccc tcg tcg tta gaa gtt gct 6144
Gly Arg Leu Ser Ser Ser Ser Gln Pro Ser Ser Leu Glu Val Ala
1950 1955 1960

tcc gaa gac gat ttt gcc ata gcc aca cga cgc cta tta att gtg 6189
Ser Glu Asp Asp Phe Ala Ile Ala Thr Arg Arg Leu Leu Ile Val
1965 1970 1975

tcg gct aac acg tcc gcg atc aaa ttt gta gtt gag ctt ttt gga 6234

Ser Ala Asn Thr Ser Ala Ile Lys Phe Val Val Glu Leu Phe Gly
1980 1985 1990

att att tct gat tgc ggg cgt ttt tgg gcg ggt ttc aat cta act 6279
Ile Ile Ser Asp Cys Gly Arg Phe Trp Ala Gly Phe Asn Leu Thr
1995 2000 2005

gtg ccc gat ttt aat tca gac aac acg tta gaa agc gat ggt gca 6324
Val Pro Asp Phe Asn Ser Asp Asn Thr Leu Glu Ser Asp Gly Ala
2010 2015 2020

ggc ggt ggt aac att tca gac ggc aaa tct act aat ggc ggc ggt 6369
Gly Gly Gly Asn Ile Ser Asp Gly Lys Ser Thr Asn Gly Gly Gly
2025 2030 2035

ggt gga gct gat gat aaa tct acc atc ggt gga ggc gca ggc ggg 6414
Gly Gly Ala Asp Asp Lys Ser Thr Ile Gly Gly Gly Ala Gly Gly
2040 2045 2050

gct ggc ggc gga ggc gga ggc gga ggt ggt ggc ggt gat gca gac 6459
Ala Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Asp Ala Asp
2055 2060 2065

ggc ggt tta ggc tca aat gtc tct tta ggc aac aca gtc ggc acc 6504
Gly Gly Leu Gly Ser Asn Val Ser Leu Gly Asn Thr Val Gly Thr
2070 2075 2080

tca act att gta ctg gtt tcg ggc gcc gtt ttt ggt ttg acc ggt 6549
Ser Thr Ile Val Leu Val Ser Gly Ala Val Phe Gly Leu Thr Gly
2085 2090 2095

ctg aga cga gtg cga ttt ttt tcg ttt cta ata gct tcc aac aat 6594
Leu Arg Arg Val Arg Phe Phe Ser Phe Leu Ile Ala Ser Asn Asn
2100 2105 2110

tgt tgt ctg tcg tct aaa ggt gca gcg ggt tga ggt tcc gtc ggc 6639
Cys Cys Leu Ser Ser Lys Gly Ala Ala Gly Gly Ser Val Gly
2115 2120

att ggt gga gcg ggc ggc aat tca gac atc gat ggt ggt ggt ggt 6684
Ile Gly Gly Ala Gly Gly Asn Ser Asp Ile Asp Gly Gly Gly Gly
2125 2130 2135

ggt gga ggc gct gga atg tta ggc acg gga gaa ggt ggt ggc ggc 6729
Gly Gly Gly Ala Gly Met Leu Gly Thr Gly Glu Gly Gly Gly Gly
2140 2145 2150

ggt gcc gcc ggt ata att tgt tct ggt tta gtt tgt tcg cgc acg 6774
Gly Ala Ala Gly Ile Ile Cys Ser Gly Leu Val Cys Ser Arg Thr
2155 2160 2165

att gtg ggc acc ggc gca ggc gcc gct ggc tgc aca acg gaa ggt 6819
Ile Val Gly Thr Gly Ala Gly Ala Ala Gly Cys Thr Thr Glu Gly
2170 2175 2180

cgt ctg ctt cga ggc agc gct tgg ggt ggt ggc aat tca ata tta 6864
Arg Leu Leu Arg Gly Ser Ala Trp Gly Gly Gly Asn Ser Ile Leu
2185 2190 2195

taa ttg gaa tac aaa tcg taa aaa tct gct ata agc att gta att 6909

Leu Glu Tyr Lys Ser Lys Ser Ala Ile Ser Ile Val Ile
2200 2205 2210

tcg cta tcg ttt acc gtg ccg ata ttt aac aac cgc tca atg taa 6954
Ser Leu Ser Phe Thr Val Pro Ile Phe Asn Asn Arg Ser Met
2215 2220 2225

gca att gta ttg taa aga gat tgt ctc aag ctc cgc acg ccg ata 6999
Ala Ile Val Leu Arg Asp Cys Leu Lys Leu Arg Thr Pro Ile
2230 2235 2240

aca agc ctt ttc att ttt act aca gca ttg tag tgg cga gac act 7044
Thr Ser Leu Phe Ile Phe Thr Thr Ala Leu Trp Arg Asp Thr
2245 2250

tcg ctg tcg tcg acg tac atg tat gct ttg ttg tca aaa acg tcg 7089
Ser Leu Ser Ser Thr Tyr Met Tyr Ala Leu Leu Ser Lys Thr Ser
2255 2260 2265

ttg gca agc ttt aaa ata ttt aaa aga aca tct ctg ttc agc acc 7134
Leu Ala Ser Phe Lys Ile Phe Lys Arg Thr Ser Leu Phe Ser Thr
2270 2275 2280

act gtg ttg tcg taa atg ttg ttt ttg ata att tgc gct tcc gca 7179
Thr Val Leu Ser Met Leu Phe Leu Ile Ile Cys Ala Ser Ala
2285 2290 2295

gta tcg aca cgt tca aaa aat tga tgc gca tca att ttg ttg ttc 7224
Val Ser Thr Arg Ser Lys Asn Cys Ala Ser Ile Leu Leu Phe
2300 2305 2310

cta tta ttg aat aaa taa gat tgt aca gat tca tat cta cga ttc 7269
Leu Leu Leu Asn Lys Asp Cys Thr Asp Ser Tyr Leu Arg Phe
2315 2320 2325

gtc atg gcc acc aca aat gct acg ctg caa acg ctg gta caa ttt 7314
Val Met Ala Thr Thr Asn Ala Thr Leu Gln Thr Leu Val Gln Phe
2330 2335 2340

tac gaa aac tgc aaa aac gtc aaa act cgg tat aaa ata atc aac 7359
Tyr Glu Asn Cys Lys Asn Val Lys Thr Arg Tyr Lys Ile Ile Asn
2345 2350 2355

ggg cgc ttt ggc aaa ata tct att tta tcg cac aag ccc act agc 7404
Gly Arg Phe Gly Lys Ile Ser Ile Leu Ser His Lys Pro Thr Ser
2360 2365 2370

aaa ttg tat ttg cag aaa aca att tcg gcg cac aat ttt aac gct 7449
Lys Leu Tyr Leu Gln Lys Thr Ile Ser Ala His Asn Phe Asn Ala
2375 2380 2385

gac gaa ata aaa gtt cac cag tta atg agc gac cac cca aat ttt 7494
Asp Glu Ile Lys Val His Gln Leu Met Ser Asp His Pro Asn Phe
2390 2395 2400

ata aaa atc tat ttt aat cac ggt tcc atc aac aac caa gtg atc 7539
Ile Lys Ile Tyr Phe Asn His Gly Ser Ile Asn Asn Gln Val Ile
2405 2410 2415

gtg atg gac tac att gac tgt ccc gat tta ttt gaa aca cta caa 7584

Val Met Asp Tyr Ile Asp Cys Pro Asp Leu Phe Glu Thr Leu Gln
2420 2425 2430

att aaa ggc gag ctt tcg tac caa ctt gtt agc aat att att aga 7629
Ile Lys Gly Glu Leu Ser Tyr Gln Leu Val Ser Asn Ile Ile Arg
2435 2440 2445

cag ctg tgt gaa gcg ctc aac gat ttg cac aag cac aat ttc ata 7674
Gln Leu Cys Glu Ala Leu Asn Asp Leu His Lys His Asn Phe Ile
2450 2455 2460

cac aac gac ata aaa ctc gaa aat gtc tta tat ttc gaa gca ctt 7719
His Asn Asp Ile Lys Leu Glu Asn Val Leu Tyr Phe Glu Ala Leu
2465 2470 2475

gat cgc gtg tat gtt tgc gat tac gga ttg tgc aaa cac gaa aac 7764
Asp Arg Val Tyr Val Cys Asp Tyr Gly Leu Cys Lys His Glu Asn
2480 2485 2490

tca ctt agc gtg cac gac ggc acg ttg gag tat ttt agt ccg gaa 7809
Ser Leu Ser Val His Asp Gly Thr Leu Glu Tyr Phe Ser Pro Glu
2495 2500 2505

aaa att cga cac aca act atg cac gtt tcg ttt gac tgg tac gcg 7854
Lys Ile Arg His Thr Thr Met His Val Ser Phe Asp Trp Tyr Ala
2510 2515 2520

gcg tgt taa cat aca agt tgc taa ccg gcg gtt cgt aat cat ggt 7899
Ala Cys His Thr Ser Cys Pro Ala Val Arg Asn His Gly
2525 2530

cat agc tgt ttc ctg tgt gaa att gtt atc cgc tca caa ttc cac 7944
His Ser Cys Phe Leu Cys Glu Ile Val Ile Arg Ser Gln Phe His
2535 2540 2545

aca aca tac gag ccg gaa gca taa agt gta aag cct ggg gtg cct 7989
Thr Thr Tyr Glu Pro Glu Ala Ser Val Lys Pro Gly Val Pro
2550 2555 2560

aat gag tga gct aac tca cat taa ttg cgt tgc gct cac tgc ccg 8034
Asn Glu Ala Asn Ser His Leu Arg Cys Ala His Cys Pro
2565 2570 2575

ctt tcc agt cgg gaa acc tgt cgt gcc agc tgc att aat gaa tcg 8079
Leu Ser Ser Arg Glu Thr Cys Arg Ala Ser Cys Ile Asn Glu Ser
2580 2585 2590

gcc aac gcg cgg gga gag gcg gtt tgc gta ttg ggc gct ctt ccg 8124
Ala Asn Ala Arg Gly Glu Ala Val Cys Val Leu Gly Ala Leu Pro
2595 2600 2605

ctt cct cgc tca ctg act cgc tgc gct cgg tcg ttc ggc tgc ggc 8169
Leu Pro Arg Ser Leu Thr Arg Cys Ala Arg Ser Phe Gly Cys Gly
2610 2615 2620

gag cgg tat cag ctc act caa agg cgg taa tac ggt tat cca cag 8214
Glu Arg Tyr Gln Leu Thr Gln Arg Arg Tyr Gly Tyr Pro Gln
2625 2630 2635

aat cag ggg ata acg cag gaa aga aca tgt gag caa aag gcc agc 8259

Asn Gln Gly Ile Thr Gln Glu Arg Thr Cys Glu Gln Lys Ala Ser
2640 2645 2650

aaa agg cca gga acc gta aaa agg ccg cgt tgc tgg cgt ttt tcc 8304
Lys Arg Pro Gly Thr Val Lys Arg Pro Arg Cys Trp Arg Phe Ser
2655 2660 2665

ata ggc tcc gcc ccc ctg acg agc atc aca aaa atc gac gct caa 8349
Ile Gly Ser Ala Pro Leu Thr Ser Ile Thr Lys Ile Asp Ala Gln
2670 2675 2680

gtc aga ggt ggc gaa acc cga cag gac tat aaa gat acc agg cgt 8394
Val Arg Gly Gly Glu Thr Arg Gln Asp Tyr Lys Asp Thr Arg Arg
2685 2690 2695

ttc ccc ctg gaa gct ccc tcg tgc gct ctc ctg ttc cga ccc tgc 8439
Phe Pro Leu Glu Ala Pro Ser Cys Ala Leu Leu Phe Arg Pro Cys
2700 2705 2710

cgc tta ccg gat acc tgt ccg cct ttc tcc ctt cgg gaa gcg tgg 8484
Arg Leu Pro Asp Thr Cys Pro Pro Phe Ser Leu Arg Glu Ala Trp
2715 2720 2725

cgc ttt ctc ata gct cac gct gta ggt atc tca gtt cgg tgt agg 8529
Arg Phe Leu Ile Ala His Ala Val Gly Ile Ser Val Arg Cys Arg
2730 2735 2740

tcg ttc gct cca agc tgg gct gtg tgc acg aac ccc ccg ttc agc 8574
Ser Phe Ala Pro Ser Trp Ala Val Cys Thr Asn Pro Pro Phe Ser
2745 2750 2755

ccg acc gct gcg cct tat ccg gta act atc gtc ttg agt cca acc 8619
Pro Thr Ala Ala Pro Tyr Pro Val Thr Ile Val Leu Ser Pro Thr
2760 2765 2770

cgg taa gac acg act tat cgc cac tgg cag cag cca ctg gta aca 8664
Arg Asp Thr Thr Tyr Arg His Trp Gln Gln Pro Leu Val Thr
2775 2780

gga tta gca gag cga ggt atg tag gcg gtg cta cag agt tct tga 8709
Gly Leu Ala Glu Arg Gly Met Ala Val Leu Gln Ser Ser
2785 2790 2795

agt ggt ggc cta act acg gct aca cta gaa gga cag tat ttg gta 8754
Ser Gly Gly Leu Thr Thr Ala Thr Leu Glu Gly Gln Tyr Leu Val
2800 2805 2810

tct gcg ctc tgc tga agc cag tta cct tcg gaa aaa gag ttg gta 8799
Ser Ala Leu Cys Ser Gln Leu Pro Ser Glu Lys Glu Leu Val
2815 2820 2825

gct ctt gat ccg gca aac aaa cca ccg ctg gta gcg gtg gtt ttt 8844
Ala Leu Asp Pro Ala Asn Lys Pro Pro Leu Val Ala Val Val Phe
2830 2835 2840

ttg ttt gca agc agc aga tta cgc gca gaa aaa aag gat ctc aag 8889
Leu Phe Ala Ser Ser Arg Leu Arg Ala Glu Lys Lys Asp Leu Lys
2845 2850 2855

aag atc ctt tga tct ttt cta cgg ggt ctg acg ctc agt gga acg 8934

Lys Ile Leu Ser Phe Leu Arg Gly Leu Thr Leu Ser Gly Thr
2860 2865 2870

aaa act cac gtt aag gga ttt tgg tca tga gat tat caa aaa gga 8979
Lys Thr His Val Lys Gly Phe Trp Ser Asp Tyr Gln Lys Gly
2875 2880

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Ser Ser Pro Arg Ser Phe Ile Lys Asn Glu Val Leu Asn Gln
2885 2890 2895

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Ser Lys Val Tyr Met Ser Lys Leu Gly Leu Thr Val Thr Asn Ala
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Ser Val Arg His Leu Ser Gln Arg Ser Val Tyr Phe Val His
2915 2920 2925

cca tag ttg cct gac tcc ccg tcg tgt aga taa cta cga tac ggg 9159
Pro Leu Pro Asp Ser Pro Ser Cys Arg Leu Arg Tyr Gly
2930 2935 2940

agg gct tac cat ctg gcc cca gtg ctg caa tga tac cgc gag acc 9204
Arg Ala Tyr His Leu Ala Pro Val Leu Gln Tyr Arg Glu Thr
2945 2950

cac gct cac cgg ctc cag att tat cag caa taa acc agc cag ccg 9249
His Ala His Arg Leu Gln Ile Tyr Gln Gln Thr Ser Gln Pro
2955 2960 2965

gaa ggg ccg agc gca gaa gtg gtc ctg caa ctt tat ccg cct cca 9294
Glu Gly Pro Ser Ala Glu Val Val Leu Gln Leu Tyr Pro Pro Pro
2970 2975 2980

tcc agt cta tta att gtt gcc ggg aag cta gag taa gta gtt cgc 9339
Ser Ser Leu Leu Ile Val Ala Gly Lys Leu Glu Val Val Arg
2985 2990 2995

cag tta ata gtt tgc gca acg ttg ttg cca ttg cta cag gca tcg 9384
Gln Leu Ile Val Cys Ala Thr Leu Leu Pro Leu Leu Gln Ala Ser
3000 3005 3010

tgg tgt cac gct cgt cgt ttg gta tgg ctt cat tca gct ccg gtt 9429
Trp Cys His Ala Arg Arg Leu Val Trp Leu His Ser Ala Pro Val
3015 3020 3025

ccc aac gat caa ggc gag tta cat gat ccc cca tgt tgt gca aaa 9474
Pro Asn Asp Gln Gly Glu Leu His Asp Pro Pro Cys Cys Ala Lys
3030 3035 3040

aag cgg tta gct cct tcg gtc ctc cga tcg ttg tca gaa gta agt 9519
Lys Arg Leu Ala Pro Ser Val Leu Arg Ser Leu Ser Glu Val Ser
3045 3050 3055

tgg ccg cag tgt tat cac tca tgg tta tgg cag cac tgc ata att 9564
Trp Pro Gln Cys Tyr His Ser Trp Leu Trp Gln His Cys Ile Ile
3060 3065 3070

ctc tta ctg tca tgc cat ccg taa gat gct ttt ctg tga ctg gtg 9609

Leu Leu Leu Ser Cys His Pro Asp Ala Phe Leu Leu Val
3075 3080 3085

agt act caa cca agt cat tct gag aat agt gta tgc ggc gac cga 9654
Ser Thr Gln Pro Ser His Ser Glu Asn Ser Val Cys Gly Asp Arg
3090 3095 3100

gtt gct ctt gcc cgg cgt caa tac ggg ata ata ccg cgc cac ata 9699
Val Ala Leu Ala Arg Arg Gln Tyr Gly Ile Ile Pro Arg His Ile
3105 3110 3115

gca gaa ctt taa aag tgc tca tca ttg gaa aac gtt ctt cgg ggc 9744
Ala Glu Leu Lys Cys Ser Ser Leu Glu Asn Val Leu Arg Gly
3120 3125

gaa aac tct caa gga tct tac cgc tgt tga gat cca gtt cga tgt 9789
Glu Asn Ser Gln Gly Ser Tyr Arg Cys Asp Pro Val Arg Cys
3130 3135 3140

aac cca ctc gtg cac cca act gat ctt cag cat ctt tta ctt tca 9834
Asn Pro Leu Val His Pro Thr Asp Leu Gln His Leu Leu Leu Ser
3145 3150 3155

cca gcg ttt ctg ggt gag caa aaa cag gaa ggc aaa atg ccg caa 9879
Pro Ala Phe Leu Gly Glu Gln Lys Gln Glu Gly Lys Met Pro Gln
3160 3165 3170

aaa agg gaa taa ggg cga cac gga aat gtt gaa tac tca tac tct 9924
Lys Arg Glu Gly Arg His Gly Asn Val Glu Tyr Ser Tyr Ser
3175 3180 3185

tcc ttt ttc aat att att gaa gca ttt atc agg gtt att gtc tca 9969
Ser Phe Phe Asn Ile Ile Glu Ala Phe Ile Arg Val Ile Val Ser
3190 3195 3200

tga gcg gat aca tat ttg aat gta ttt aga aaa ata aac aaa tag 10014
Ala Asp Thr Tyr Leu Asn Val Phe Arg Lys Ile Asn Lys
3205 3210 3215

ggg ttc cgc gca cat ttc ccc gaa aag tgc cac ctg acg tct aag 10059
Gly Phe Arg Ala His Phe Pro Glu Lys Cys His Leu Thr Ser Lys
3220 3225 3230

aaa cca tta tta tca tga cat taa cct ata aaa ata ggc gta tca cga 10107
Lys Pro Leu Leu Ser His Pro Ile Lys Ile Gly Val Ser Arg
3235 3240

ggc cct ttc gtc tcg cgc gtt tcg gtg atg acg gtg aaa acc tct 10152
Gly Pro Phe Val Ser Arg Val Ser Val Met Thr Val Lys Thr Ser
3245 3250 3255

gac aca tgc agc tcc cgg aga cgg tca cag ctt gtc tgt aag cgg 10197
Asp Thr Cys Ser Ser Arg Arg Arg Ser Gln Leu Val Cys Lys Arg
3260 3265 3270

atg ccg gga gca gac aag ccc gtc agg gcg cgt cag cgg gtg ttg 10242
Met Pro Gly Ala Asp Lys Pro Val Arg Ala Arg Gln Arg Val Leu
3275 3280 3285

gcg ggt gtc ggg gct ggc tta act atg cgg cat cag agc aga ttg 10287

Ala Gly Val Gly Ala Gly Leu Thr Met Arg His Gln Ser Arg Leu
3290 3295 3300

tac tga gag tgc acc ata tgc ggt gtg aaa tac cgc aca gat gcg 10332
Tyr Glu Cys Thr Ile Cys Gly Val Lys Tyr Arg Thr Asp Ala
3305 3310 3315

taa gga gaa aat acc gca tca ggc gcc att cgc cat tca ggc tgc 10377
Gly Glu Asn Thr Ala Ser Gly Ala Ile Arg His Ser Gly Cys
3320 3325 3330

gca act gtt ggg aag ggc gat cgg tgc ggg cct ctt cgc tat tac 10422
Ala Thr Val Gly Lys Gly Asp Arg Cys Gly Pro Leu Arg Tyr Tyr
3335 3340 3345

gcc agc tgg cga aag ggg gat gtg ctg caa ggc gat taa gtt ggg 10467
Ala Ser Trp Arg Lys Gly Asp Val Leu Gln Gly Asp Val Gly
3350 3355 3360

taa cgc cag ggt ttt ccc agt cac gac gtt gta aaa cga cgg cca 10512
Arg Gln Gly Phe Pro Ser His Asp Val Val Lys Arg Arg Pro
3365 3370 3375

gtg cc 10517
Val

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peptide sequence

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Tyr Leu Gln Cys Gly Gln Val Ile Lys Asp Ser Asn Leu Ile Cys Phe
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Lys Thr Pro Leu Arg Pro Glu Leu Phe Ala Tyr Val Thr Ser Glu Glu
35 40 45

Asp Val Trp Thr Ala Glu Gln Ile Val Lys Gln Asn Pro Ser Ile Gly
50 55 60

Ala Ile Ile Asp Leu Thr Asn Thr Ser Lys Tyr Tyr Asp Gly Val His
65 70 75 80

Phe Leu Arg Ala Gly Leu Leu Tyr Lys Lys Ile Gln Val Pro Gly Gln
85 90 95

Thr Leu Pro Pro Glu Ser Ile Val Gln Glu Phe Ile Asp Thr Val Lys
100 105 110

Glu Phe Thr Glu Lys Cys Pro Gly Met Leu Val Gly Val His Cys Thr
115 120 125

His Gly Ile Asn Arg Thr Gly Tyr Met Val Cys Arg Tyr Leu Met His
130 135 140

Thr Leu Gly Ile Ala Pro Gln Glu Ala Ile Asp Arg Phe Glu Lys Ala
145 150 155 160

Arg Gly His Lys Ile Glu Arg Gln Asn Tyr Val Gln Asp Leu Leu Ile
165 170 175

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1 5 10 15

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<211> 33

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1 5 10 15

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1 5 10 15

Pro Gly Ser Arg Cys Thr Cys Gly Leu Asp Gln Ser
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1 5 10 15

Leu His Glu His Val
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<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 22

Arg Arg Pro Trp Pro Arg Thr Gly Pro Val Gly Arg Ala Leu Ala Arg
1 5 10 15

Thr Ala Gly

<210> 23
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 23
Thr Tyr Leu Leu Gln Ile
1 5

<210> 24
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 24
Ile Leu Gln Phe
1

<210> 25
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 25
Arg Glu Pro Phe
1

<210> 26
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 26

Tyr Thr Cys Val Asp Phe Ala Thr Thr Ile Val Phe
1 5 10

<210> 27
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 27
Arg Lys Leu Asn Leu Leu Trp
1 5

<210> 28
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 28
Ala Ile Ile Lys Tyr Gly Gly Thr Cys Ala Ala Thr Thr Leu Val Val
1 5 10 15

Met Asn Ala Asp Gly Ala Gly Leu Gly Ala Ser Gly
20 25

<210> 29
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 29
Asn Val Leu Arg Val Gln Arg Gly Lys His Arg Lys Ser Gln
1 5 10

<210> 30
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 30

Tyr Ser Phe Asp Leu His Ile Asn Gly Asp Phe Leu Asn Tyr Leu Ile
1 5 10 15

<210> 31
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 31
Ile Val Met Thr Pro Thr Thr Pro Arg Pro Arg
1 5 10

<210> 32
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 32
Leu Ala Ala Pro Arg Ala Val Arg
1 5

<210> 33

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 33

Arg Leu Pro Pro Cys Gly Arg Thr Arg Arg Ala Gly Gly Arg
1 5 10

<210> 34

<211> 54

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 34

Pro Ala Ala Cys Arg Thr Arg Arg Thr Ser Ile Cys Thr Pro Asn Asp
1 5 10 15

Arg Arg Ala Lys Ala Arg Arg Pro Pro Ser Gly Asn Ile Gly Lys Phe
20 25 30

Glu Asn Ile Tyr Ser Trp Val Val Cys Ala Tyr Leu Ser Trp Arg Trp
35 40 45

Ala Cys Thr Ser Glu Arg
50

<210> 35
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 35
Phe Ala Cys Lys Pro Lys Leu Asn His Cys Asp
1 5 10

<210> 36
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 36
Asn Val Val His Pro Arg Phe
1 5

<210> 37
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 37
Ser Cys Arg Arg Leu Asn Arg Ala Ile Glu Ser Ser Asp Gln Ser Val
1 5 10 15

Glu

<210> 38
<211> 16

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 38
Cys Phe Leu Cys Ile Pro Glu Ser Ser Ala Ala Arg Ile Leu Thr Asn
1 5 10 15

<210> 39
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 39
Pro Ser Cys Lys Leu Val Ser Phe Asn Ala Thr Leu Ser Asn Asn Ile
1 5 10 15

Leu Cys Ile Ala Arg Gln Glu Leu Thr Met Arg Pro Leu Ser His Leu
20 25 30

Asn Thr Thr Met Ile Glu Ile Lys
35 40

<210> 40
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 40
Ile Ala Cys Asp Ala Thr Cys Thr Ile Cys Ala Arg Val Pro Ala Arg
1 5 10 15

Ala Leu Ile Val Ile Ser Phe Tyr Glu Ala Met Thr
20 25

<210> 41
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 41

Gln Arg Ser Arg Pro Lys Glu Leu Pro Thr Thr Lys Leu Pro Ser Met
1 5 10 15

Ser Val Thr Leu Lys Leu Leu Ser His Pro Ile Asp Arg
20 25

<210> 42

<211> 222

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv461 peptide sequence

<400> 42

Ser Asn Gln Asp Arg Trp Cys Glu Lys Pro Arg Ser Met Ala Asn Ala
1 5 10 15

Ser Tyr Asn Val Trp Ser Pro Leu Ile Arg Ala Ser Cys Leu Asp Lys
20 25 30

Lys Ala Thr Tyr Leu Ile Asp Pro Asp Asp Phe Ile Asp Lys Leu Thr
35 40 45

Leu Thr Pro Tyr Thr Val Phe Tyr Asn Gly Gly Val Leu Val Lys Ile
50 55 60

Ser Gly Leu Arg Leu Tyr Met Leu Leu Thr Ala Pro Pro Thr Ile Asn
65 70 75 80

Glu Ile Lys Asn Ser Asn Phe Lys Lys Arg Ser Lys Arg Asn Ile Cys
85 90 95

Met Lys Glu Cys Val Glu Gly Lys Lys Asn Val Val Asp Met Leu Asn
100 105 110

Asn Lys Ile Asn Met Pro Pro Cys Ile Lys Lys Ile Leu Asn Asp Leu
115 120 125

Lys Glu Asn Asn Val Pro Arg Gly Gly Met Tyr Arg Lys Arg Phe Ile
130 135 140

Leu Asn Cys Tyr Ile Ala Asn Val Val Ser Cys Ala Lys Cys Glu Asn
145 150 155 160

Arg Cys Leu Ile Lys Ala Leu Thr His Phe Tyr Asn His Asp Ser Lys
165 170 175

Cys Val Gly Glu Val Met His Leu Leu Ile Lys Ser Gln Asp Val Tyr
180 185 190

Lys Pro Pro Asn Cys Gln Lys Met Lys Thr Val Asp Lys Leu Cys Pro
195 200 205

Phe Ala Gly Asn Cys Lys Gly Leu Asn Pro Ile Cys Asn Tyr
210 215 220

<210> 43
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 43
Ile Ile Lys Gln Leu
1 5

<210> 44

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 44

Met Leu Asn Leu Phe Phe Ile Asn Asp Thr Asn Gln Thr Gln Gln Glu
1 5 10 15

His Leu

<210> 45

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 45

Leu Lys Thr Arg Ser Tyr Asn Arg
1 5

<210> 46
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 46
Asn His Phe Gln Met Ile His Ser
1 5

<210> 47
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 47
Phe Ala Thr Ile
1

<210> 48

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 48

Phe Tyr Phe His Ile Asn
1 5

<210> 49

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 49

Thr Pro Cys Arg Leu Leu Leu Arg Ile Pro Ser Leu Phe His Phe Ser
1 5 10 15

Pro His Lys Asn
20

<210> 50

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 50

His Ser Tyr Tyr Arg Ile His Ile Cys Ile Tyr Arg Ile Glu

1 5 10

<210> 51

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 51

Ile Phe Cys Cys His Lys Tyr Ile Cys Leu Phe

1 5 10

<210> 52
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 52
Tyr Arg Cys Ala
1

<210> 53
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 53
Phe Phe Cys Asn Leu Gln Gln Cys Tyr Phe Leu Val Val Leu Arg Ser
1 5 10 15

Val Leu Leu

<210> 54
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 54
Leu Leu Asn Leu Tyr Asn Gln
1 5

<210> 55
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 55
Ile Trp Asp Arg Arg Phe Cys Thr Ile Cys Cys Arg His Ser Thr Gln
1 5 10 15

Leu Leu Leu Val Gln Leu His His Phe Leu Ala Ala Pro Asp
20 25 30

<210> 56
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 56
His Asn Phe Pro Lys Cys Cys Thr Asn Arg
1 5 10

<210> 57
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 57
Thr Lys Thr Val His Leu Pro Phe Leu Tyr Tyr Cys Leu Arg Ala Val
1 5 10 15

Val Cys Cys

<210> 58
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 58
Asp Ala Gln Thr Asn Ile Thr Asn Trp Lys Cys Leu Ser Ile Tyr Ser
1 5 10 15

Cys

<210> 59
<211> 5
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 59
Tyr His Gly Asp Asn
1 5

<210> 60
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 60
Asn Asp Asn His Leu Ala Asn Lys
1 5

<210> 61
<211> 333
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 61

Val Phe Tyr Cys Phe Arg Asn Ser Phe Val Ile Lys Lys Pro Ile Asn
1 5 10 15

Ile Pro Asp Tyr Ser Tyr Arg Pro Thr Ile Gly Arg Gly Ser Met Leu
20 25 30

Leu Val Asn Gln Ser His Gln Gly Phe Asn Lys Glu His Thr Ser Lys
35 40 45

Met Val Ser Ala Ile Val Leu Tyr Val Leu Leu Ala Ala Ala Ala His
50 55 60

Ser Ala Phe Ala Ala Asp Leu Gly Ser His His His His His His Ile
65 70 75 80

Glu Gly Arg Glu Phe Gln Val Gln Leu Lys Glu Ser Gly Pro Gly Leu
85 90 95

Val Ala Pro Ser Gln Ser Leu Ser Ile Thr Cys Thr Val Ser Gly Phe
100 105 110

Ser Leu Thr Ser Tyr Gly Val Ser Trp Val Arg Gln Pro Pro Gly Lys
115 120 125

Gly Leu Glu Trp Leu Gly Val Ile Trp Gly Asp Gly Ser Thr Asn Tyr
130 135 140

His Ser Ala Leu Ile Ser Arg Leu Ser Ile Ser Lys Asp Asn Ser Lys
145 150 155 160

Ser Gln Val Phe Ser Lys Leu Asn Ser Leu Gln Thr Asp Asp Thr Ala
165 170 175

Thr Tyr Tyr Cys Ala Lys Arg Gly Gly Tyr Gly Asn Tyr Tyr Ala Met
180 185 190

Asp Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser Gly Gly Gly
195 200 205

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Val Met
210 215 220

Thr Gln Ser His Lys Phe Met Ser Thr Ser Val Gly Asp Arg Val Ser
225 230 235 240

Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Thr Ala Val Ala Trp Tyr
245 250 255

Gln Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Trp Ala Ser
260 265 270

Thr Arg His Thr Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly
275 280 285

Thr Asp Tyr Thr Leu Thr Ile Ser Ser Val Gln Ala Glu Asp Leu Ala
290 295 300

Leu Tyr Tyr Cys Gln Gln His Tyr Ser Thr Pro Pro Thr Phe Gly Gly
305 310 315 320

Gly Thr Lys Leu Gly Thr Lys Arg Ala Pro Gly Gly Cys
325 330

<210> 62
<211> 190
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv461 peptide sequence

<400> 62

Arg Ser Asp Pro Phe Leu Gly Pro Gly Lys Asn Gln Lys Leu Thr Leu
1 5 10 15

Phe Lys Glu Ile Arg Asn Val Lys Pro Asp Thr Met Lys Leu Val Val
20 25 30

Gly Trp Lys Gly Lys Glu Phe Tyr Arg Glu Thr Trp Thr Arg Phe Met
35 40 45

Glu Asp Ser Phe Pro Ile Val Asn Asp Gln Glu Val Met Asp Val Phe
50 55 60

Leu Val Val Asn Met Arg Pro Thr Arg Pro Asn Arg Cys Tyr Lys Phe
65 70 75 80

Leu Ala Gln His Ala Leu Arg Cys Asp Pro Asp Tyr Val Pro His Asp
85 90 95

Val Ile Arg Ile Val Glu Pro Ser Trp Val Gly Ser Asn Asn Glu Tyr
100 105 110

Arg Ile Ser Leu Ala Lys Lys Gly Gly Gly Cys Pro Ile Met Asn Leu
115 120 125

His Ser Glu Tyr Thr Asn Ser Phe Glu Gln Phe Ile Asp Arg Val Ile
130 135 140

Trp Glu Asn Phe Tyr Lys Pro Ile Val Tyr Ile Gly Thr Asp Ser Ala
145 150 155 160

Glu Glu Glu Glu Ile Leu Leu Glu Val Ser Leu Val Phe Lys Val Lys
165 170 175

Glu Phe Ala Pro Asp Ala Pro Leu Phe Thr Gly Pro Ala Tyr
180 185 190

<210> 63
<211> 6
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 63
Asn Thr Ile His Cys Tyr
1 5

<210> 64
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 64
Ala Leu Asp Ser Val Arg Cys
1 5

<210> 65
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 65

Phe Thr Asp Asn Cys Cys Thr Tyr Phe Asn Asn Ser Leu Asn Leu
1 5 10 15

<210> 66

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv461 peptide sequence

<400> 66

Ser Leu Gly Trp Tyr Val Arg Ala Lys Ile Lys
1 5 10

<210> 67

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv461 peptide sequence

<400> 67

Phe Ser Ala Ser Leu Tyr Leu Asn Leu Asn Ile Lys Ser Ser Ile Asp
1 5 10 15

Leu

<210> 68
<211> 73
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 68
Asn Arg Phe Arg Leu Val Ser Asn Lys Gly Cys Phe Ser Glu Pro Met
1 5 10 15

Ala Gly Leu Ser Asn Gly Phe Ser Leu Asn Ala Thr Lys Leu Ala Lys
20 25 30

Ser Cys Ser Ser Asn Leu Ala Leu Ser Ile Phe Val Cys Val Leu Phe
35 40 45

Cys Asn Lys Gly Ser Thr Ser Phe Lys Ile Leu Cys Ala Phe Val Phe
50 55 60

Leu Ser Ser Leu Ser Leu Val Tyr Asn
65 70

<210> 69
<211> 196
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461 peptide sequence

<400> 69
Leu Asp Val Asn Thr Leu Asn Lys Ala Trp Thr Tyr Leu Thr Ser Gly
1 5 10 15

Val Leu Ala Leu Leu Gly Arg Leu Ser Ser Ser Ser Gln Pro Ser Ser
20 25 30

Leu Glu Val Ala Ser Glu Asp Asp Phe Ala Ile Ala Thr Arg Arg Leu
35 40 45

Leu Ile Val Ser Ala Asn Thr Ser Ala Ile Lys Phe Val Val Glu Leu
50 55 60

Phe Gly Ile Ile Ser Asp Cys Gly Arg Phe Trp Ala Gly Phe Asn Leu
65 70 75 80

Thr Val Pro Asp Phe Asn Ser Asp Asn Thr Leu Glu Ser Asp Gly Ala
85 90 95

Gly Gly Gly Asn Ile Ser Asp Gly Lys Ser Thr Asn Gly Gly Gly Gly
100 105 110

Gly Ala Asp Asp Lys Ser Thr Ile Gly Gly Gly Ala Gly Gly Ala Gly
115 120 125

Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Asp Ala Asp Gly Gly Leu
130 135 140

Gly Ser Asn Val Ser Leu Gly Asn Thr Val Gly Thr Ser Thr Ile Val
145 150 155 160

Leu Val Ser Gly Ala Val Phe Gly Leu Thr Gly Leu Arg Arg Val Arg
165 170 175

Phe Phe Ser Phe Leu Ile Ala Ser Asn Asn Cys Cys Leu Ser Ser Lys
180 185 190

Gly Ala Ala Gly
195

<210> 70
<211> 79
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 70
Gly Ser Val Gly Ile Gly Gly Ala Gly Gly Asn Ser Asp Ile Asp Gly
1 5 10 15

Gly Gly Gly Gly Gly Gly Ala Gly Met Leu Gly Thr Gly Glu Gly Gly
20 25 30

Gly Gly Gly Ala Ala Gly Ile Ile Cys Ser Gly Leu Val Cys Ser Arg
35 40 45

Thr Ile Val Gly Thr Gly Ala Gly Ala Ala Gly Cys Thr Thr Glu Gly
50 55 60

Arg Leu Leu Arg Gly Ser Ala Trp Gly Gly Gly Asn Ser Ile Leu
65 70 75

<210> 71
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 71
Leu Glu Tyr Lys Ser
1 5

<210> 72
<211> 22
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 72
Lys Ser Ala Ile Ser Ile Val Ile Ser Leu Ser Phe Thr Val Pro Ile
1 5 10 15

Phe Asn Asn Arg Ser Met
20

<210> 73
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 73
Ala Ile Val Leu
1

<210> 74
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 74
Arg Asp Cys Leu Lys Leu Arg Thr Pro Ile Thr Ser Leu Phe Ile Phe
1 5 10 15

Thr Thr Ala Leu
20

<210> 75
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 75
Trp Arg Asp Thr Ser Leu Ser Ser Thr Tyr Met Tyr Ala Leu Leu Ser
1 5 10 15

Lys Thr Ser Leu Ala Ser Phe Lys Ile Phe Lys Arg Thr Ser Leu Phe
20 25 30

Ser Thr Thr Val Leu Ser
35

<210> 76
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 76
Met Leu Phe Leu Ile Ile Cys Ala Ser Ala Val Ser Thr Arg Ser Lys
1 5 10 15

Asn

<210> 77
<211> 12
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 77
Cys Ala Ser Ile Leu Leu Phe Leu Leu Leu Asn Lys
1 5 10

<210> 78
<211> 206
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 78
Asp Cys Thr Asp Ser Tyr Leu Arg Phe Val Met Ala Thr Thr Asn Ala
1 5 10 15

Thr Leu Gln Thr Leu Val Gln Phe Tyr Glu Asn Cys Lys Asn Val Lys
20 25 30

Thr Arg Tyr Lys Ile Ile Asn Gly Arg Phe Gly Lys Ile Ser Ile Leu
35 40 45

Ser His Lys Pro Thr Ser Lys Leu Tyr Leu Gln Lys Thr Ile Ser Ala
50 55 60

His Asn Phe Asn Ala Asp Glu Ile Lys Val His Gln Leu Met Ser Asp
65 70 75 80

His Pro Asn Phe Ile Lys Ile Tyr Phe Asn His Gly Ser Ile Asn Asn
85 90 95

Gln Val Ile Val Met Asp Tyr Ile Asp Cys Pro Asp Leu Phe Glu Thr
100 105 110

Leu Gln Ile Lys Gly Glu Leu Ser Tyr Gln Leu Val Ser Asn Ile Ile
115 120 125

Arg Gln Leu Cys Glu Ala Leu Asn Asp Leu His Lys His Asn Phe Ile
130 135 140

His Asn Asp Ile Lys Leu Glu Asn Val Leu Tyr Phe Glu Ala Leu Asp
145 150 155 160

Arg Val Tyr Val Cys Asp Tyr Gly Leu Cys Lys His Glu Asn Ser Leu
165 170 175

Ser Val His Asp Gly Thr Leu Glu Tyr Phe Ser Pro Glu Lys Ile Arg
180 185 190

His Thr Thr Met His Val Ser Phe Asp Trp Tyr Ala Ala Cys
195 200 205

<210> 79
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461 peptide sequence

<400> 79
His Thr Ser Cys
1

<210> 80
<211> 29
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 80
Pro Ala Val Arg Asn His Gly His Ser Cys Phe Leu Cys Glu Ile Val
1 5 10 15

Ile Arg Ser Gln Phe His Thr Thr Tyr Glu Pro Glu Ala
20 25

<210> 81
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 81
Ser Val Lys Pro Gly Val Pro Asn Glu
1 5

<210> 82
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 82
Ala Asn Ser His
1

<210> 83
<211> 61
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 83
Leu Arg Cys Ala His Cys Pro Leu Ser Ser Arg Glu Thr Cys Arg Ala
1 5 10 15

Ser Cys Ile Asn Glu Ser Ala Asn Ala Arg Gly Glu Ala Val Cys Val
20 25 30

Leu Gly Ala Leu Pro Leu Pro Arg Ser Leu Thr Arg Cys Ala Arg Ser
35 40 45

Phe Gly Cys Gly Glu Arg Tyr Gln Leu Thr Gln Arg Arg
50 55 60

<210> 84
<211> 141
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 84
Tyr Gly Tyr Pro Gln Asn Gln Gly Ile Thr Gln Glu Arg Thr Cys Glu
1 5 10 15

Gln Lys Ala Ser Lys Arg Pro Gly Thr Val Lys Arg Pro Arg Cys Trp
20 25 30

Arg Phe Ser Ile Gly Ser Ala Pro Leu Thr Ser Ile Thr Lys Ile Asp
35 40 45

Ala Gln Val Arg Gly Gly Glu Thr Arg Gln Asp Tyr Lys Asp Thr Arg
50 55 60

Arg Phe Pro Leu Glu Ala Pro Ser Cys Ala Leu Leu Phe Arg Pro Cys
65 70 75 80

Arg Leu Pro Asp Thr Cys Pro Pro Phe Ser Leu Arg Glu Ala Trp Arg
85 90 95

Phe Leu Ile Ala His Ala Val Gly Ile Ser Val Arg Cys Arg Ser Phe
100 105 110

Ala Pro Ser Trp Ala Val Cys Thr Asn Pro Pro Phe Ser Pro Thr Ala
115 120 125

Ala Pro Tyr Pro Val Thr Ile Val Leu Ser Pro Thr Arg
130 135 140

<210> 85
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 85

Asp Thr Thr Tyr Arg His Trp Gln Gln Pro Leu Val Thr Gly Leu Ala
1 5 10 15

Glu Arg Gly Met
20

<210> 86

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv461 peptide sequence

<400> 86

Ala Val Leu Gln Ser Ser
1 5

<210> 87

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 87
Ser Gly Gly Leu Thr Thr Ala Thr Leu Glu Gly Gln Tyr Leu Val Ser
1 5 10 15

Ala Leu Cys

<210> 88
<211> 43
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
ppeptie sequence

<400> 88
Ser Gln Leu Pro Ser Glu Lys Glu Leu Val Ala Leu Asp Pro Ala Asn
1 5 10 15

Lys Pro Pro Leu Val Ala Val Val Phe Leu Phe Ala Ser Ser Arg Leu
20 25 30

Arg Ala Glu Lys Lys Asp Leu Lys Lys Ile Leu
35 40

<210> 89
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461 peptide sequence

<400> 89
Ser Phe Leu Arg Gly Leu Thr Leu Ser Gly Thr Lys Thr His Val Lys
1 5 10 15

Gly Phe Trp Ser
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<210> 90
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461 peptide sequence

<400> 90

Asp Tyr Gln Lys Gly Ser Ser Pro Arg Ser Phe

1 5 10

<210> 91

<211> 23

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv461 peptide sequence

<400> 91

Ile Lys Asn Glu Val Leu Asn Gln Ser Lys Val Tyr Met Ser Lys Leu

1 5 10 15

Gly Leu Thr Val Thr Asn Ala

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<210> 92

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 92
Ser Val Arg His Leu Ser Gln Arg Ser Val Tyr Phe Val His Pro
1 5 10 15

<210> 93
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 93
Leu Pro Asp Ser Pro Ser Cys Arg
1 5

<210> 94
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 94

Leu Arg Tyr Gly Arg Ala Tyr His Leu Ala Pro Val Leu Gln
1 5 10

<210> 95

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 95

Tyr Arg Glu Thr His Ala His Arg Leu Gln Ile Tyr Gln Gln
1 5 10

<210> 96

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 96

Thr Ser Gln Pro Glu Gly Pro Ser Ala Glu Val Val Leu Gln Leu Tyr
1 5 10 15

Pro Pro Pro Ser Ser Leu Leu Ile Val Ala Gly Lys Leu Glu
20 25 30

<210> 97
<211> 85
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461 peptide sequence

<400> 97
Val Val Arg Gln Leu Ile Val Cys Ala Thr Leu Leu Pro Leu Leu Gln
1 5 10 15

Ala Ser Trp Cys His Ala Arg Arg Leu Val Trp Leu His Ser Ala Pro
20 25 30

Val Pro Asn Asp Gln Gly Glu Leu His Asp Pro Pro Cys Cys Ala Lys
35 40 45

Lys Arg Leu Ala Pro Ser Val Leu Arg Ser Leu Ser Glu Val Ser Trp
50 55 60

Pro Gln Cys Tyr His Ser Trp Leu Trp Gln His Cys Ile Ile Leu Leu
65 70 75 80

Leu Ser Cys His Pro
85

<210> 98
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 98
Asp Ala Phe Leu
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<210> 99
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 99
Leu Val Ser Thr Gln Pro Ser His Ser Glu Asn Ser Val Cys Gly Asp
1 5 10 15

Arg Val Ala Leu Ala Arg Arg Gln Tyr Gly Ile Ile Pro Arg His Ile
20 25 30

Ala Glu Leu
35

<210> 100
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 100
Lys Cys Ser Ser Leu Glu Asn Val Leu Arg Gly Glu Asn Ser Gln Gly
1 5 10 15

Ser Tyr Arg Cys
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<210> 101
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461 peptide sequence

<400> 101
Asp Pro Val Arg Cys Asn Pro Leu Val His Pro Thr Asp Leu Gln His
1 5 10 15

Leu Leu Leu Ser Pro Ala Phe Leu Gly Glu Gln Lys Gln Glu Gly Lys
20 25 30

Met Pro Gln Lys Arg Glu
35

<210> 102
<211> 26

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 102
Gly Arg His Gly Asn Val Glu Tyr Ser Tyr Ser Ser Phe Phe Asn Ile
1 5 10 15

Ile Glu Ala Phe Ile Arg Val Ile Val Ser
20 25

<210> 103
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 103
Ala Asp Thr Tyr Leu Asn Val Phe Arg Lys Ile Asn Lys
1 5 10

<210> 104
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 104
Gly Phe Arg Ala His Phe Pro Glu Lys Cys His Leu Thr Ser Lys Lys
1 5 10 15

Pro Leu Leu Ser
20

<210> 105
<211> 69
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 105
Pro Ile Lys Ile Gly Val Ser Arg Gly Pro Phe Val Ser Arg Val Ser
1 5 10 15

Val Met Thr Val Lys Thr Ser Asp Thr Cys Ser Ser Arg Arg Arg Ser
20 25 30

Gln Leu Val Cys Lys Arg Met Pro Gly Ala Asp Lys Pro Val Arg Ala
35 40 45

Arg Gln Arg Val Leu Ala Gly Val Gly Ala Gly Leu Thr Met Arg His
50 55 60

Gln Ser Arg Leu Tyr
65

<210> 106
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 106
Glu Cys Thr Ile Cys Gly Val Lys Tyr Arg Thr Asp Ala
1 5 10

<210> 107

<211> 41

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 107

Gly Glu Asn Thr Ala Ser Gly Ala Ile Arg His Ser Gly Cys Ala Thr
1 5 10 15

Val Gly Lys Gly Asp Arg Cys Gly Pro Leu Arg Tyr Tyr Ala Ser Trp
20 25 30

Arg Lys Gly Asp Val Leu Gln Gly Asp
35 40

<210> 108

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv461
peptide sequence

<400> 108
Arg Gln Gly Phe Pro Ser His Asp Val Val Lys Arg Arg Pro Val
1 5 10 15

<210> 109
<211> 10511
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
nucleotide sequence

<220>
<221> CDS
<222> (1)..(10509)

<400> 109
aag ctt tac tcg taa agc gag ttg aag gat cat att tag ttg cgt tta 48
Lys Leu Tyr Ser Ser Glu Leu Lys Asp His Ile Leu Arg Leu
1 5 10

tga gat aag att gaa agc acg tgt aaa atg ttt ccc gcg cgt tgg cac 96
Asp Lys Ile Glu Ser Thr Cys Lys Met Phe Pro Ala Arg Trp His
15 20 25

aac tat tta caa tgc ggc caa gtt ata aaa gat tct aat ctg ata tgt 144
Asn Tyr Leu Gln Cys Gly Gln Val Ile Lys Asp Ser Asn Leu Ile Cys
30 35 40 45

ttt aaa aca cct ttg cgg ccc gag ttg ttt gcg tac gtg act agc gaa 192
Phe Lys Thr Pro Leu Arg Pro Glu Leu Phe Ala Tyr Val Thr Ser Glu
50 55 60

gaa gat gtg tgg acc gca gaa cag ata gta aaa caa aac cct agt att 240
Glu Asp Val Trp Thr Ala Glu Gln Ile Val Lys Gln Asn Pro Ser Ile
65 70 75

gga gca ata atc gat tta acc aac acg tct aaa tat tat gat ggt gtg 288
Gly Ala Ile Ile Asp Leu Thr Asn Thr Ser Lys Tyr Tyr Asp Gly Val
80 85 90

cat ttt ttg cgg gcg ggc ctg tta tac aaa aaa att caa gta cct ggc 336
His Phe Leu Arg Ala Gly Leu Leu Tyr Lys Lys Ile Gln Val Pro Gly
95 100 105

cag act ttg ccg cct gaa agc ata gtt caa gaa ttt att gac acg gta 384
Gln Thr Leu Pro Pro Glu Ser Ile Val Gln Glu Phe Ile Asp Thr Val
110 115 120 125

aaa gaa ttt aca gaa aag tgt ccc ggc atg ttg gtg ggc gtg cac tgc 432
Lys Glu Phe Thr Glu Lys Cys Pro Gly Met Leu Val Gly Val His Cys
130 135 140

aca cac ggt att aat cgc acc ggt tac atg gtg tgc aga tat tta atg 480
Thr His Gly Ile Asn Arg Thr Gly Tyr Met Val Cys Arg Tyr Leu Met

145 150 155

cac acc ctg ggt att gcg ccg cag gaa gcc ata gat aga ttc gaa aaa 528
His Thr Leu Gly Ile Ala Pro Gln Glu Ala Ile Asp Arg Phe Glu Lys
160 165 170

gcc aga ggt cac aaa att gaa aga caa aat tac gtt caa gat tta tta 576
Ala Arg Gly His Lys Ile Glu Arg Gln Asn Tyr Val Gln Asp Leu Leu
175 180 185

att taa tta ata tta ttt gca ttc ttt aac aaa tac ttt atc cta ttt 624
Ile Leu Ile Leu Phe Ala Phe Phe Asn Lys Tyr Phe Ile Leu Phe
190 195 200

tca aat tgt tgc gct tct tcc agc gaa cca aaa cta tgc ttc gct tgc 672
Ser Asn Cys Cys Ala Ser Ser Ser Glu Pro Lys Leu Cys Phe Ala Cys
205 210 215 220

tcc gtt tag ctt gta gcc gat cag tgg cgt tgt tcc aat cga cgg tag 720
Ser Val Leu Val Ala Asp Gln Trp Arg Cys Ser Asn Arg Arg
225 230

gat tag gcc gga tat tct cca cca caa tgt tgg caa cgt tga tgt tac 768
Asp Ala Gly Tyr Ser Pro Pro Gln Cys Trp Gln Arg Cys Tyr
235 240 245

gtt tat gct ttt ggt ttt cca cgt acg tct ttt ggc cgg taa tag ccg 816
Val Tyr Ala Phe Gly Phe Pro Arg Thr Ser Phe Gly Arg Pro
250 255 260

taa acg tag tgc cgt cgc gcg tca cgc aca aca ccg gat gtt tgc gct 864
Thr Cys Arg Arg Ala Ser Arg Thr Thr Pro Asp Val Cys Ala
265 270 275

tgt ccg cgg ggt att gaa ccg cgc gat ccg aca aat cca cca ctt tgg 912
Cys Pro Arg Gly Ile Glu Pro Arg Asp Pro Thr Asn Pro Pro Leu Trp
280 285 290

caa cta aat cgg tga cct gcg cgt ctt ttt tct gca tta ttt cgt ctt 960
Gln Leu Asn Arg Pro Ala Arg Leu Phe Ser Ala Leu Phe Arg Leu
295 300 305

tct ttt gca tgg ttt cct gga agc cgg tgt aca tgc ggt tta gat cag 1008
Ser Phe Ala Trp Phe Pro Gly Ser Arg Cys Thr Cys Gly Leu Asp Gln
310 315 320

tca tga cgc gcg tga cct gca aat ctt tgg cct cga tct gct tgt cct 1056
Ser Arg Ala Pro Ala Asn Leu Trp Pro Arg Ser Ala Cys Pro
325 330 335

tga tgg caa cga tgc gtt caa taa act ctt gtt ttt taa caa gtt cct 1104
Trp Gln Arg Cys Val Gln Thr Leu Val Phe Gln Val Pro
340 345 350

cgg ttt ttt gcg cca cca ccg ctt gca gcg cgt ttg tgt gct cgg tga 1152
Arg Phe Phe Ala Pro Pro Pro Leu Ala Ala Arg Leu Cys Ala Arg
355 360 365

atg tcg caa tca gct tag tca cca act gtt tgc tct cct cct ccc gtt 1200
Met Ser Gln Ser Ala Ser Pro Thr Val Cys Ser Pro Pro Pro Val

370 375 380

gtt tga tcg cgg gat cgt act tgc cgg tgc aga gca ctt gag gaa tta 1248
Val Ser Arg Asp Arg Thr Cys Arg Cys Arg Ala Leu Glu Glu Leu
385 390 395

ctt ctt cta aaa gcc att ctt gta att cta tgg cgt aag gca att tgg 1296
Leu Leu Leu Lys Ala Ile Leu Val Ile Leu Trp Arg Lys Ala Ile Trp
400 405 410

act tca taa tca gct gaa tca cgc cgg att tag taa tga gca ctg tat 1344
Thr Ser Ser Ala Glu Ser Arg Arg Ile Ala Leu Tyr
415 420

gcg gct gca aat aca gcg ggt cgc ccc ttt tca cga cgc tgt tag agg 1392
Ala Ala Ala Asn Thr Ala Gly Arg Pro Phe Ser Arg Arg Cys Arg
425 430 435

tag ggc ccc cat ttt gga tgg tct gct caa ata acg att tgt att tat 1440
Gly Pro His Phe Gly Trp Ser Ala Gln Ile Thr Ile Cys Ile Tyr
440 445 450

tgt cta cat gaa cac gta tag ctt tat cac aaa ctg tat att tta aac 1488
Cys Leu His Glu His Val Leu Tyr His Lys Leu Tyr Ile Leu Asn
455 460 465

tgt tag cga cgt cct tgg cca cga acc gga cct gtt ggt cgc gct cta 1536
Cys Arg Arg Pro Trp Pro Arg Thr Gly Pro Val Gly Arg Ala Leu
470 475 480

gca cgt acc gca ggt tga acg tat ctt ctc caa att taa att ctc caa 1584
Ala Arg Thr Ala Gly Thr Tyr Leu Leu Gln Ile Ile Leu Gln
485 490 495

ttt taa cgc gag cca ttt tga tac acg tgt gtc gat ttt gca aca act 1632
Phe Arg Glu Pro Phe Tyr Thr Cys Val Asp Phe Ala Thr Thr
500 505 510

att gtt ttt taa cgc aaa cta aac tta ttg tgg taa gca ata att aaa 1680
Ile Val Phe Arg Lys Leu Asn Leu Leu Trp Ala Ile Ile Lys
515 520 525

tat ggg gga aca tgc gcc gct aca aca ctc gtc gtt atg aac gca gac 1728
Tyr Gly Gly Thr Cys Ala Ala Thr Thr Leu Val Val Met Asn Ala Asp
530 535 540

ggc gcc ggt ctc ggc gca agc ggc taa aac gtg ttg cgc gtt caa cgc 1776
Gly Ala Gly Leu Gly Ala Ser Gly Asn Val Leu Arg Val Gln Arg
545 550 555

ggc aaa cat cgc aaa agc caa tag tac agt ttt gat ttg cat att aac 1824
Gly Lys His Arg Lys Ser Gln Tyr Ser Phe Asp Leu His Ile Asn
560 565 570

ggc gat ttt tta aat tat ctt att taa taa ata gtt atg acg cct aca 1872
Gly Asp Phe Leu Asn Tyr Leu Ile Ile Val Met Thr Pro Thr
575 580 585

act ccc cgc ccg cgt tga ctc gct gca cct cga gca gtt cgt tga cgc 1920
Thr Pro Arg Pro Arg Leu Ala Ala Pro Arg Ala Val Arg Arg

590 595

ctt cct ccg tgt ggc cga aca cgt cga gcg ggt ggt cga tga cca gcg 1968
Leu Pro Pro Cys Gly Arg Thr Arg Arg Ala Gly Gly Arg Pro Ala
600 605 610

gcg tgc cgc acg cga cgc aca agt atc tgt aca ccg aat gat cgt cgg 2016
Ala Cys Arg Thr Arg Arg Thr Ser Ile Cys Thr Pro Asn Asp Arg Arg
615 620 625 630

gcg aag gca cgt cgg cct cca agt ggc aat att ggc aaa ttc gaa aat 2064
Ala Lys Ala Arg Arg Pro Pro Ser Gly Asn Ile Gly Lys Phe Glu Asn
635 640 645

ata tac agt tgg gtt gtt tgc gca tat cta tcg tgg cgt tgg gca tgt 2112
Ile Tyr Ser Trp Val Val Cys Ala Tyr Leu Ser Trp Arg Trp Ala Cys
650 655 660

acg tcc gaa cgt tga ttt gca tgc aag ccg aaa tta aat cat tgc gat 2160
Thr Ser Glu Arg Phe Ala Cys Lys Pro Lys Leu Asn His Cys Asp
665 670 675

tag tgc gat taa aac gtt gta cat cct cgc ttt taa tca tgc cgt cga 2208
Cys Asp Asn Val Val His Pro Arg Phe Ser Cys Arg Arg
680 685 690

tta aat cgc gca atc gag tca agt gat caa agt gtg gaa taa tgt ttt 2256
Leu Asn Arg Ala Ile Glu Ser Ser Asp Gln Ser Val Glu Cys Phe
695 700 705

ctt tgt att ccc gag tca agc gca gcg cgt att tta aca aac tag cca 2304
Leu Cys Ile Pro Glu Ser Ser Ala Ala Arg Ile Leu Thr Asn Pro
710 715 720

tct tgt aag tta gtt tca ttt aat gca act tta tcc aat aat ata tta 2352
Ser Cys Lys Leu Val Ser Phe Asn Ala Thr Leu Ser Asn Asn Ile Leu
725 730 735

tgt atc gca cgt caa gaa tta aca atg cgc ccg ttg tcg cat ctc aac 2400
Cys Ile Ala Arg Gln Glu Leu Thr Met Arg Pro Leu Ser His Leu Asn
740 745 750

acg act atg ata gag atc aaa taa agc gcg aat taa ata gct tgc gac 2448
Thr Thr Met Ile Glu Ile Lys Ser Ala Asn Ile Ala Cys Asp
755 760 765

gca acg tgc acg atc tgt gca cgc gtt ccg gca cga gct ttg att gta 2496
Ala Thr Cys Thr Ile Cys Ala Arg Val Pro Ala Arg Ala Leu Ile Val
770 775 780

ata agt ttt tac gaa gcg atg aca tga ccc ccg tag tga caa cga tca 2544
Ile Ser Phe Tyr Glu Ala Met Thr Pro Pro Gln Arg Ser
785 790 795

cgc cca aaa gaa ctg ccg act aca aaa tta ccg agt atg tcg gtg acg 2592
Arg Pro Lys Glu Leu Pro Thr Thr Lys Leu Pro Ser Met Ser Val Thr
800 805 810

tta aaa cta tta agc cat cca atc gac cgt tag tcg aat cag gac cgc 2640
Leu Lys Leu Leu Ser His Pro Ile Asp Arg Ser Asn Gln Asp Arg

815 820 825

tgg tgc gag aag ccg cga agt atg gcg aat gca tcg tat aac gtg tgg 2688
Trp Cys Glu Lys Pro Arg Ser Met Ala Asn Ala Ser Tyr Asn Val Trp
830 835 840

agt ccg ctc att aga gcg tca tgt tta gac aag aaa gct aca tat tta 2736
Ser Pro Leu Ile Arg Ala Ser Cys Leu Asp Lys Lys Ala Thr Tyr Leu
845 850 855

att gat ccc gat gat ttt att gat aaa ttg acc cta act cca tac acg 2784
Ile Asp Pro Asp Asp Phe Ile Asp Lys Leu Thr Leu Thr Pro Tyr Thr
860 865 870

gta ttc tac aat ggc ggg gtt ttg gtc aaa att tcc gga ctg cga ttg 2832
Val Phe Tyr Asn Gly Gly Val Leu Val Lys Ile Ser Gly Leu Arg Leu
875 880 885 890

tac atg ctg tta acg gct ccg ccc act att aat gaa att aaa aat tcc 2880
Tyr Met Leu Leu Thr Ala Pro Pro Thr Ile Asn Glu Ile Lys Asn Ser
895 900 905

aat ttt aaa aaa cgc agc aag aga aac att tgt atg aaa gaa tgc gta 2928
Asn Phe Lys Lys Arg Ser Lys Arg Asn Ile Cys Met Lys Glu Cys Val
910 915 920

gaa gga aag aaa aat gtc gtc gac atg ctg aac aac aag att aat atg 2976
Glu Gly Lys Lys Asn Val Val Asp Met Leu Asn Asn Lys Ile Asn Met
925 930 935

cct ccg tgt ata aaa aaa ata ttg aac gat ttg aaa gaa aac aat gta 3024
Pro Pro Cys Ile Lys Lys Ile Leu Asn Asp Leu Lys Glu Asn Asn Val
940 945 950

ccg cgc ggc ggt atg tac agg aag agg ttt ata cta aac tgt tac att 3072
Pro Arg Gly Gly Met Tyr Arg Lys Arg Phe Ile Leu Asn Cys Tyr Ile
955 960 965 970

gca aac gtg gtt tcg tgt gcc aag tgt gaa aac cga tgt tta atc aag 3120
Ala Asn Val Val Ser Cys Ala Lys Cys Glu Asn Arg Cys Leu Ile Lys
975 980 985

gct ctg acg cat ttc tac aac cac gac tcc aag tgt gtg ggt gaa gtc 3168
Ala Leu Thr His Phe Tyr Asn His Asp Ser Lys Cys Val Gly Glu Val
990 995 1000

atg cat ctt tta atc aaa tcc caa gat gtg tat aaa cca cca aac 3213
Met His Leu Leu Ile Lys Ser Gln Asp Val Tyr Lys Pro Pro Asn
1005 1010 1015

tgc caa aaa atg aaa act gtc gac aag ctc tgt ccg ttt gct ggc 3258
Cys Gln Lys Met Lys Thr Val Asp Lys Leu Cys Pro Phe Ala Gly
1020 1025 1030

aac tgc aag ggt ctc aat cct att tgt aat tat tga ata ata aaa 3303
Asn Cys Lys Gly Leu Asn Pro Ile Cys Asn Tyr Ile Ile Lys
1035 1040 1045

caa tta taa atg cta aat ttg ttt ttt att aac gat aca aac caa 3348
Gln Leu Met Leu Asn Leu Phe Phe Ile Asn Asp Thr Asn Gln

1050 1055 1060

acg caa caa gaa cat ttg tag tat tat cta taa ttg aaa acg cgt agt 3396
Thr Gln Gln Glu His Leu Tyr Tyr Leu Leu Lys Thr Arg Ser
1065 1070

tat aat cgc tga ggt aat att taa aat cat ttt caa atg att cac 3441
Tyr Asn Arg Gly Asn Ile Asn His Phe Gln Met Ile His
1075 1080 1085

agt taa ttt gcg aca ata taa ttt tat ttt cac ata aac tag acg 3486
Ser Phe Ala Thr Ile Phe Tyr Phe His Ile Asn Thr
1090 1095

cct tgt cgt ctt ctt ctt cgt att cct tct ctt ttt cat ttt tct 3531
Pro Cys Arg Leu Leu Leu Arg Ile Pro Ser Leu Phe His Phe Ser
1100 1105 1110

cct cat aaa aat taa cat agt tat tat cgt atc cat ata tgt atc 3576
Pro His Lys Asn His Ser Tyr Tyr Arg Ile His Ile Cys Ile
1115 1120 1125

tat cgt ata gag taa att ttt tgt tgt cat aaa tat ata tgt ctt 3621
Tyr Arg Ile Glu Ile Phe Cys Cys His Lys Tyr Ile Cys Leu
1130 1135 1140

ttt taa tgg ggt gta tag tac cgc tgc gca tag ttt ttc tgt aat 3666
Phe Trp Gly Val Tyr Arg Cys Ala Phe Phe Cys Asn
1145 1150

tta caa cag tgc tat ttt ctg gta gtt ctt cgg agt gtg ttg ctt 3711
Leu Gln Gln Cys Tyr Phe Leu Val Val Leu Arg Ser Val Leu Leu
1155 1160 1165

taa tta tta aat tta tat aat caa tga att tgg gat cgt cgg ttt 3756
Leu Leu Asn Leu Tyr Asn Gln Ile Trp Asp Arg Arg Phe
1170 1175 1180

tgt aca ata tgt tgc cgg cat agt acg cag ctt ctt cta gtt caa 3801
Cys Thr Ile Cys Cys Arg His Ser Thr Gln Leu Leu Leu Val Gln
1185 1190 1195

tta cac cat ttt tta gca gca ccg gat taa cat aac ttt cca aaa 3846
Leu His His Phe Leu Ala Ala Pro Asp His Asn Phe Pro Lys
1200 1205 1210

tgt tgt acg aac cgt taa aca aaa aca gtt cac ctc cct ttt cta 3891
Cys Cys Thr Asn Arg Thr Lys Thr Val His Leu Pro Phe Leu
1215 1220 1225

tac tat tgt ctg cga gca gtt gtt tgt tgt taa aaa taa cag cca ttg 3939
Tyr Tyr Cys Leu Arg Ala Val Val Cys Cys Lys Gln Pro Leu
1230 1235

taa tga gac gca caa act aat atc aca aac tgg aaa tgt cta tca 3984
Asp Ala Gln Thr Asn Ile Thr Asn Trp Lys Cys Leu Ser
1240 1245 1250

ata tat agt tgc tga tat cat gga gat aat taa aat gat aac cat 4029
Ile Tyr Ser Cys Tyr His Gly Asp Asn Asn Asp Asn His

1255 1260 1265

ctc gca aat aaa taa gta ttt tac tgt ttt cgt aac agt ttt gta 4074
Leu Ala Asn Lys Val Phe Tyr Cys Phe Arg Asn Ser Phe Val
1270 1275

ata aaa aaa cct ata aat att ccg gat tat tca tac cgt ccc acc 4119
Ile Lys Lys Pro Ile Asn Ile Pro Asp Tyr Ser Tyr Arg Pro Thr
1280 1285 1290

atc ggg cgc gga tct atg cta cta gta aat cag tca cac caa ggc 4164
Ile Gly Arg Gly Ser Met Leu Leu Val Asn Gln Ser His Gln Gly
1295 1300 1305

ttc aat aag gaa cac aca agc aag atg gta agc gct att gtt tta 4209
Phe Asn Lys Glu His Thr Ser Lys Met Val Ser Ala Ile Val Leu
1310 1315 1320

tat gtg ctt ttg gcg gcg gcg gcg cat tct gcc ttt gcg gcg gat 4254
Tyr Val Leu Leu Ala Ala Ala Ala His Ser Ala Phe Ala Ala Asp
1325 1330 1335

ctt gga tcc cat cat cac cac cac cac att gaa gga aga gaa ttc 4299
Leu Gly Ser His His His His His His Ile Glu Gly Arg Glu Phe
1340 1345 1350

cag gtc caa ctg cag cag tct ggg gct gaa ctg gca aaa cct ggg 4344
Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Ala Lys Pro Gly
1355 1360 1365

gcc tca gtg aag ctg tcc tgc aag gct tct ggc cac acc ttt act 4389
Ala Ser Val Lys Leu Ser Cys Lys Ala Ser Gly His Thr Phe Thr
1370 1375 1380

agc tac tgg atg cac tgg gta aaa cag agg cct gga cag ggt ctg 4434
Ser Tyr Trp Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu
1385 1390 1395

gaa tgg att gga tac att aat ctt agc agt ggt tat att aag tac 4479
Glu Trp Ile Gly Tyr Ile Asn Leu Ser Ser Gly Tyr Ile Lys Tyr
1400 1405 1410

aat cag gag ttc aag gac aag gcc aca ttg act gca gac aaa tcc 4524
Asn Gln Glu Phe Lys Asp Lys Ala Thr Leu Thr Ala Asp Lys Ser
1415 1420 1425

tcc aac aca gcc tac atg cat ctg agc agc ctg aca tat gag gac 4569
Ser Asn Thr Ala Tyr Met His Leu Ser Ser Leu Thr Tyr Glu Asp
1430 1435 1440

tct gca gtc tat tac tgt gca agg gca gct cag gct acg acc ttt 4614
Ser Ala Val Tyr Tyr Cys Ala Arg Ala Ala Gln Ala Thr Thr Phe
1445 1450 1455

gac tac tgg ggc caa ggc acc act ctc aca gtc tcc tca ggt gga 4659
Asp Tyr Trp Gly Gln Gly Thr Thr Leu Thr Val Ser Ser Gly Gly
1460 1465 1470

ggc ggt tca ggc gga ggt ggc tct ggc ggt ggc gga tcg gac att 4704
Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile

1475 1480 1485

gtg atg atc cag tct cac aaa ttc atg tcc aca tca gta gga gac 4749
Val Met Ile Gln Ser His Lys Phe Met Ser Thr Ser Val Gly Asp
1490 1495 1500

agg gtc agc atc acc tgc aag gcc agt cag gat gtg agt act gct 4794
Arg Val Ser Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Thr Ala
1505 1510 1515

gta ggc tgg tat caa caa aaa cca ggg caa tct cct aaa cta ctg 4839
Val Gly Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu
1520 1525 1530

att tac tgg gca tcc acc cgg cac act gga gtc cct gat cgc ttc 4884
Ile Tyr Trp Ala Ser Thr Arg His Thr Gly Val Pro Asp Arg Phe
1535 1540 1545

aca ggc agt gga tct ggg aca gat tat act ctc acc atc agc agt 4929
Thr Gly Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser
1550 1555 1560

gtg cag gct gaa gac ctg gca ctt tat tac tgt cag caa cat tat 4974
Val Gln Ala Glu Asp Leu Ala Leu Tyr Tyr Cys Gln Gln His Tyr
1565 1570 1575

agc act cct ccg acg ttc ggt gga ggc acc aag ctg gga atc aaa 5019
Ser Thr Pro Pro Thr Phe Gly Gly Gly Thr Lys Leu Gly Ile Lys
1580 1585 1590

cgg gct ccc ggg gga tgt taa aga tct gat cct ttc ctg gga ccc 5064
Arg Ala Pro Gly Gly Cys Arg Ser Asp Pro Phe Leu Gly Pro
1595 1600 1605

ggc aag aac caa aaa ctc act ctc ttc aag gaa atc cgt aat gtt 5109
Gly Lys Asn Gln Lys Leu Thr Leu Phe Lys Glu Ile Arg Asn Val
1610 1615 1620

aaa ccc gac acg atg aag ctt gtc gtt gga tgg aaa gga aaa gag 5154
Lys Pro Asp Thr Met Lys Leu Val Val Gly Trp Lys Gly Lys Glu
1625 1630 1635

ttc tac agg gaa act tgg acc cgc ttc atg gaa gac agc ttc ccc 5199
Phe Tyr Arg Glu Thr Trp Thr Arg Phe Met Glu Asp Ser Phe Pro
1640 1645 1650

att gtt aac gac caa gaa gtg atg gat gtt ttc ctt gtt gtc aac 5244
Ile Val Asn Asp Gln Glu Val Met Asp Val Phe Leu Val Val Asn
1655 1660 1665

atg cgt ccc act aga ccc aac cgt tgt tac aaa ttc ctg gcc caa 5289
Met Arg Pro Thr Arg Pro Asn Arg Cys Tyr Lys Phe Leu Ala Gln
1670 1675 1680

cac gct ctg cgt tgc gac ccc gac tat gta cct cat gac gtg att 5334
His Ala Leu Arg Cys Asp Pro Asp Tyr Val Pro His Asp Val Ile
1685 1690 1695

agg atc gtc gag cct tca tgg gtg ggc agc aac aac gag tac cgc 5379
Arg Ile Val Glu Pro Ser Trp Val Gly Ser Asn Asn Glu Tyr Arg

1700 1705 1710

atc agc ctg gct aag aag ggc ggc ggc tgc cca ata atg aac ctt 5424
Ile Ser Leu Ala Lys Lys Gly Gly Gly Cys Pro Ile Met Asn Leu
1715 1720 1725

cac tct gag tac acc aac tcg ttc gaa cag ttc atc gat cgt gtc 5469
His Ser Glu Tyr Thr Asn Ser Phe Glu Gln Phe Ile Asp Arg Val
1730 1735 1740

atc tgg gag aac ttc tac aag ccc atc gtt tac atc ggt acc gac 5514
Ile Trp Glu Asn Phe Tyr Lys Pro Ile Val Tyr Ile Gly Thr Asp
1745 1750 1755

tct gct gaa gag gag gaa att ctc ctt gaa gtt tcc ctg gtg ttc 5559
Ser Ala Glu Glu Glu Glu Ile Leu Leu Glu Val Ser Leu Val Phe
1760 1765 1770

aaa gta aag gag ttt gca cca gac gca cct ctg ttc act ggt ccg 5604
Lys Val Lys Glu Phe Ala Pro Asp Ala Pro Leu Phe Thr Gly Pro
1775 1780 1785

gcg tat taa aac acg ata cat tgt tat tag tac att tat taa gcg 5649
Ala Tyr Asn Thr Ile His Cys Tyr Tyr Ile Tyr Ala
1790 1795 1800

cta gat tct gtg cgt tgt tga ttt aca gac aat tgt tgt acg tat 5694
Leu Asp Ser Val Arg Cys Phe Thr Asp Asn Cys Cys Thr Tyr
1805 1810

ttt aat aat tca tta aat tta taa tct tta ggg tgg tat gtt aga 5739
Phe Asn Asn Ser Leu Asn Leu Ser Leu Gly Trp Tyr Val Arg
1815 1820 1825

gcg aaa atc aaa tga ttt tca gcg tct tta tat ctg aat tta aat 5784
Ala Lys Ile Lys Phe Ser Ala Ser Leu Tyr Leu Asn Leu Asn
1830 1835 1840

att aaa tcc tca ata gat ttg taa aat agg ttt cga tta gtt tca 5829
Ile Lys Ser Ser Ile Asp Leu Asn Arg Phe Arg Leu Val Ser
1845 1850 1855

aac aag ggt tgt ttt tcc gaa ccg atg gct gga cta tct aat gga 5874
Asn Lys Gly Cys Phe Ser Glu Pro Met Ala Gly Leu Ser Asn Gly
1860 1865 1870

ttt tcg ctc aac gcc aca aaa ctt gcc aaa tct tgt agc agc aat 5919
Phe Ser Leu Asn Ala Thr Lys Leu Ala Lys Ser Cys Ser Ser Asn
1875 1880 1885

cta gct ttg tcg ata ttc gtt tgt gtt ttg ttt tgt aat aaa ggt 5964
Leu Ala Leu Ser Ile Phe Val Cys Val Leu Phe Cys Asn Lys Gly
1890 1895 1900

tcg acg tcg ttc aaa ata tta tgc gct ttt gta ttt ctt tca tca 6009
Ser Thr Ser Phe Lys Ile Leu Cys Ala Phe Val Phe Leu Ser Ser
1905 1910 1915

ctg tcg tta gtg tac aat tga ctc gac gta aac acg tta aat aaa 6054
Leu Ser Leu Val Tyr Asn Leu Asp Val Asn Thr Leu Asn Lys

1920 1925 1930

gct tgg aca tat tta aca tcg ggc gtg tta gct tta tta ggc cga 6099
Ala Trp Thr Tyr Leu Thr Ser Gly Val Leu Ala Leu Leu Gly Arg
1935 1940 1945

tta tcg tcg tcg tcc caa ccc tcg tcg tta gaa gtt gct tcc gaa 6144
Leu Ser Ser Ser Ser Gln Pro Ser Ser Leu Glu Val Ala Ser Glu
1950 1955 1960

gac gat ttt gcc ata gcc aca cga cgc cta tta att gtg tcg gct 6189
Asp Asp Phe Ala Ile Ala Thr Arg Arg Leu Leu Ile Val Ser Ala
1965 1970 1975

aac acg tcc gcg atc aaa ttt gta gtt gag ctt ttt gga att att 6234
Asn Thr Ser Ala Ile Lys Phe Val Val Glu Leu Phe Gly Ile Ile
1980 1985 1990

tct gat tgc ggg cgt ttt tgg gcg ggt ttc aat cta act gtg ccc 6279
Ser Asp Cys Gly Arg Phe Trp Ala Gly Phe Asn Leu Thr Val Pro
1995 2000 2005

gat ttt aat tca gac aac acg tta gaa agc gat ggt gca ggc ggt 6324
Asp Phe Asn Ser Asp Asn Thr Leu Glu Ser Asp Gly Ala Gly Gly
2010 2015 2020

ggt aac att tca gac ggc aaa tct act aat ggc ggc ggt ggt gga 6369
Gly Asn Ile Ser Asp Gly Lys Ser Thr Asn Gly Gly Gly Gly Gly
2025 2030 2035

gct gat gat aaa tct acc atc ggt gga ggc gca ggc ggg gct ggc 6414
Ala Asp Asp Lys Ser Thr Ile Gly Gly Gly Ala Gly Gly Ala Gly
2040 2045 2050

ggc gga ggc gga ggc gga ggt ggt ggc ggt gat gca gac ggc ggt 6459
Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Asp Ala Asp Gly Gly
2055 2060 2065

tta ggc tca aat gtc tct tta ggc aac aca gtc ggc acc tca act 6504
Leu Gly Ser Asn Val Ser Leu Gly Asn Thr Val Gly Thr Ser Thr
2070 2075 2080

att gta ctg gtt tcg ggc gcc gtt ttt ggt ttg acc ggt ctg aga 6549
Ile Val Leu Val Ser Gly Ala Val Phe Gly Leu Thr Gly Leu Arg
2085 2090 2095

cga gtg cga ttt ttt tcg ttt cta ata gct tcc aac aat tgt tgt 6594
Arg Val Arg Phe Phe Ser Phe Leu Ile Ala Ser Asn Asn Cys Cys
2100 2105 2110

ctg tcg tct aaa ggt gca gcg ggt tga ggt tcc gtc ggc att ggt 6639
Leu Ser Ser Lys Gly Ala Ala Gly Gly Ser Val Gly Ile Gly
2115 2120

gga gcg ggc ggc aat tca gac atc gat ggt ggt ggt ggt ggt gga 6684
Gly Ala Gly Gly Asn Ser Asp Ile Asp Gly Gly Gly Gly Gly Gly
2125 2130 2135

ggc gct gga atg tta ggc acg gga gaa ggt ggt ggc ggc ggt gcc 6729
Gly Ala Gly Met Leu Gly Thr Gly Glu Gly Gly Gly Gly Gly Ala

2140 2145 2150

gcc ggt ata att tgt tct ggt tta gtt tgt tcg cgc acg att gtg 6774
Ala Gly Ile Ile Cys Ser Gly Leu Val Cys Ser Arg Thr Ile Val
2155 2160 2165

ggc acc ggc gca ggc gcc gct ggc tgc aca acg gaa ggt cgt ctg 6819
Gly Thr Gly Ala Gly Ala Ala Gly Cys Thr Thr Glu Gly Arg Leu
2170 2175 2180

ctt cga ggc agc gct tgg ggt ggt ggc aat tca ata tta taa ttg 6864
Leu Arg Gly Ser Ala Trp Gly Gly Gly Asn Ser Ile Leu Leu
2185 2190 2195

gaa tac aaa tcg taa aaa tct gct ata agc att gta att tcg cta 6909
Glu Tyr Lys Ser Lys Ser Ala Ile Ser Ile Val Ile Ser Leu
2200 2205 2210

tcg ttt acc gtg ccg ata ttt aac aac cgc tca atg taa gca att 6954
Ser Phe Thr Val Pro Ile Phe Asn Asn Arg Ser Met Ala Ile
2215 2220 2225

gta ttg taa aga gat tgt ctc aag ctc cgc acg ccg ata aca agc 6999
Val Leu Arg Asp Cys Leu Lys Leu Arg Thr Pro Ile Thr Ser
2230 2235 2240

ctt ttc att ttt act aca gca ttg tag tgg cga gac act tcg ctg 7044
Leu Phe Ile Phe Thr Thr Ala Leu Trp Arg Asp Thr Ser Leu
2245 2250

tcg tcg acg tac atg tat gct ttg ttg tca aaa acg tcg ttg gca 7089
Ser Ser Thr Tyr Met Tyr Ala Leu Leu Ser Lys Thr Ser Leu Ala
2255 2260 2265

agc ttt aaa ata ttt aaa aga aca tct ctg ttc agc acc act gtg 7134
Ser Phe Lys Ile Phe Lys Arg Thr Ser Leu Phe Ser Thr Thr Val
2270 2275 2280

ttg tcg taa atg ttg ttt ttg ata att tgc gct tcc gca gta tcg 7179
Leu Ser Met Leu Phe Leu Ile Ile Cys Ala Ser Ala Val Ser
2285 2290 2295

aca cgt tca aaa aat tga tgc gca tca att ttg ttg ttc cta tta 7224
Thr Arg Ser Lys Asn Cys Ala Ser Ile Leu Leu Phe Leu Leu
2300 2305 2310

ttg aat aaa taa gat tgt aca gat tca tat cta cga ttc gtc atg 7269
Leu Asn Lys Asp Cys Thr Asp Ser Tyr Leu Arg Phe Val Met
2315 2320 2325

gcc acc aca aat gct acg ctg caa acg ctg gta caa ttt tac gaa 7314
Ala Thr Thr Asn Ala Thr Leu Gln Thr Leu Val Gln Phe Tyr Glu
2330 2335 2340

aac tgc aaa aac gtc aaa act cgg tat aaa ata atc aac ggg cgc 7359
Asn Cys Lys Asn Val Lys Thr Arg Tyr Lys Ile Ile Asn Gly Arg
2345 2350 2355

ttt ggc aaa ata tct att tta tcg cac aag ccc act agc aaa ttg 7404
Phe Gly Lys Ile Ser Ile Leu Ser His Lys Pro Thr Ser Lys Leu

2360 2365 2370

tat ttg cag aaa aca att tcg gcg cac aat ttt aac gct gac gaa 7449
Tyr Leu Gln Lys Thr Ile Ser Ala His Asn Phe Asn Ala Asp Glu
2375 2380 2385

ata aaa gtt cac cag tta atg agc gac cac cca aat ttt ata aaa 7494
Ile Lys Val His Gln Leu Met Ser Asp His Pro Asn Phe Ile Lys
2390 2395 2400

atc tat ttt aat cac ggt tcc atc aac aac caa gtg atc gtg atg 7539
Ile Tyr Phe Asn His Gly Ser Ile Asn Asn Gln Val Ile Val Met
2405 2410 2415

gac tac att gac tgt ccc gat tta ttt gaa aca cta caa att aaa 7584
Asp Tyr Ile Asp Cys Pro Asp Leu Phe Glu Thr Leu Gln Ile Lys
2420 2425 2430

ggc gag ctt tcg tac caa ctt gtt agc aat att att aga cag ctg 7629
Gly Glu Leu Ser Tyr Gln Leu Val Ser Asn Ile Ile Arg Gln Leu
2435 2440 2445

tgt gaa gcg ctc aac gat ttg cac aag cac aat ttc ata cac aac 7674
Cys Glu Ala Leu Asn Asp Leu His Lys His Asn Phe Ile His Asn
2450 2455 2460

gac ata aaa ctc gaa aat gtc tta tat ttc gaa gca ctt gat cgc 7719
Asp Ile Lys Leu Glu Asn Val Leu Tyr Phe Glu Ala Leu Asp Arg
2465 2470 2475

gtg tat gtt tgc gat tac gga ttg tgc aaa cac gaa aac tca ctt 7764
Val Tyr Val Cys Asp Tyr Gly Leu Cys Lys His Glu Asn Ser Leu
2480 2485 2490

agc gtg cac gac ggc acg ttg gag tat ttt agt ccg gaa aaa att 7809
Ser Val His Asp Gly Thr Leu Glu Tyr Phe Ser Pro Glu Lys Ile
2495 2500 2505

cga cac aca act atg cac gtt tcg ttt gac tgg tac gcg gcg tgt 7854
Arg His Thr Thr Met His Val Ser Phe Asp Trp Tyr Ala Ala Cys
2510 2515 2520

taa cat aca agt tgc taa ccg gcg gtt cgt aat cat ggt cat agc 7899
His Thr Ser Cys Pro Ala Val Arg Asn His Gly His Ser
2525 2530

tgt ttc ctg tgt gaa att gtt atc cgc tca caa ttc cac aca aca 7944
Cys Phe Leu Cys Glu Ile Val Ile Arg Ser Gln Phe His Thr Thr
2535 2540 2545

tac gag ccg gaa gca taa agt gta aag cct ggg gtg cct aat gag 7989
Tyr Glu Pro Glu Ala Ser Val Lys Pro Gly Val Pro Asn Glu
2550 2555 2560

tga gct aac tca cat taa ttg cgt tgc gct cac tgc ccg ctt tcc 8034
Ala Asn Ser His Leu Arg Cys Ala His Cys Pro Leu Ser
2565 2570 2575

agt cgg gaa acc tgt cgt gcc agc tgc att aat gaa tcg gcc aac 8079
Ser Arg Glu Thr Cys Arg Ala Ser Cys Ile Asn Glu Ser Ala Asn

2580 2585 2590

gcg cgg gga gag gcg gtt tgc gta ttg ggc gct ctt ccg ctt cct 8124
Ala Arg Gly Glu Ala Val Cys Val Leu Gly Ala Leu Pro Leu Pro
2595 2600 2605

cgc tca ctg act cgc tgc gct cgg tcg ttc ggc tgc ggc gag cgg 8169
Arg Ser Leu Thr Arg Cys Ala Arg Ser Phe Gly Cys Gly Glu Arg
2610 2615 2620

tat cag ctc act caa agg cgg taa tac ggt tat cca cag aat cag 8214
Tyr Gln Leu Thr Gln Arg Arg Tyr Gly Tyr Pro Gln Asn Gln
2625 2630 2635

ggg ata acg cag gaa aga aca tgt gag caa aag gcc agc aaa agg 8259
Gly Ile Thr Gln Glu Arg Thr Cys Glu Gln Lys Ala Ser Lys Arg
2640 2645 2650

cca gga acc gta aaa agg ccg cgt tgc tgg cgt ttt tcc ata ggc 8304
Pro Gly Thr Val Lys Arg Pro Arg Cys Trp Arg Phe Ser Ile Gly
2655 2660 2665

tcc gcc ccc ctg acg agc atc aca aaa atc gac gct caa gtc aga 8349
Ser Ala Pro Leu Thr Ser Ile Thr Lys Ile Asp Ala Gln Val Arg
2670 2675 2680

ggt ggc gaa acc cga cag gac tat aaa gat acc agg cgt ttc ccc 8394
Gly Gly Glu Thr Arg Gln Asp Tyr Lys Asp Thr Arg Arg Phe Pro
2685 2690 2695

ctg gaa gct ccc tcg tgc gct ctc ctg ttc cga ccc tgc cgc tta 8439
Leu Glu Ala Pro Ser Cys Ala Leu Leu Phe Arg Pro Cys Arg Leu
2700 2705 2710

ccg gat acc tgt ccg cct ttc tcc ctt cgg gaa gcg tgg cgc ttt 8484
Pro Asp Thr Cys Pro Pro Phe Ser Leu Arg Glu Ala Trp Arg Phe
2715 2720 2725

ctc ata gct cac gct gta ggt atc tca gtt cgg tgt agg tcg ttc 8529
Leu Ile Ala His Ala Val Gly Ile Ser Val Arg Cys Arg Ser Phe
2730 2735 2740

gct cca agc tgg gct gtg tgc acg aac ccc ccg ttc agc ccg acc 8574
Ala Pro Ser Trp Ala Val Cys Thr Asn Pro Pro Phe Ser Pro Thr
2745 2750 2755

gct gcg cct tat ccg gta act atc gtc ttg agt cca acc cgg taa 8619
Ala Ala Pro Tyr Pro Val Thr Ile Val Leu Ser Pro Thr Arg
2760 2765

gac acg act tat cgc cac tgg cag cag cca ctg gta aca gga tta 8664
Asp Thr Thr Tyr Arg His Trp Gln Gln Pro Leu Val Thr Gly Leu
2770 2775 2780

gca gag cga ggt atg tag gcg gtg cta cag agt tct tga agt ggt 8709
Ala Glu Arg Gly Met Ala Val Leu Gln Ser Ser Ser Gly
2785 2790 2795

ggc cta act acg gct aca cta gaa gga cag tat ttg gta tct gcg 8754
Gly Leu Thr Thr Ala Thr Leu Glu Gly Gln Tyr Leu Val Ser Ala

2800 2805 2810

ctc tgc tga agc cag tta cct tcg gaa aaa gag ttg gta gct ctt 8799
Leu Cys Ser Gln Leu Pro Ser Glu Lys Glu Leu Val Ala Leu
2815 2820 2825

gat ccg gca aac aaa cca ccg ctg gta gcg gtg gtt ttt ttg ttt 8844
Asp Pro Ala Asn Lys Pro Pro Leu Val Ala Val Val Phe Leu Phe
2830 2835 2840

gca agc agc aga tta cgc gca gaa aaa aag gat ctc aag aag atc 8889
Ala Ser Ser Arg Leu Arg Ala Glu Lys Lys Asp Leu Lys Lys Ile
2845 2850 2855

ctt tga tct ttt cta cgg ggt ctg acg ctc agt gga acg aaa act 8934
Leu Ser Phe Leu Arg Gly Leu Thr Leu Ser Gly Thr Lys Thr
2860 2865 2870

cac gtt aag gga ttt tgg tca tga gat tat caa aaa gga tct tca 8979
His Val Lys Gly Phe Trp Ser Asp Tyr Gln Lys Gly Ser Ser
2875 2880

cct aga tcc ttt taa att aaa aat gaa gtt tta aat caa tct aaa 9024
Pro Arg Ser Phe Ile Lys Asn Glu Val Leu Asn Gln Ser Lys
2885 2890 2895

gta tat atg agt aaa ctt ggt ctg aca gtt acc aat gct taa tca 9069
Val Tyr Met Ser Lys Leu Gly Leu Thr Val Thr Asn Ala Ser
2900 2905 2910

gtg agg cac cta tct cag cga tct gtc tat ttc gtt cat cca tag 9114
Val Arg His Leu Ser Gln Arg Ser Val Tyr Phe Val His Pro
2915 2920 2925

ttg cct gac tcc ccg tcg tgt aga taa cta cga tac ggg agg gct 9159
Leu Pro Asp Ser Pro Ser Cys Arg Leu Arg Tyr Gly Arg Ala
2930 2935 2940

tac cat ctg gcc cca gtg ctg caa tga tac cgc gag acc cac gct 9204
Tyr His Leu Ala Pro Val Leu Gln Tyr Arg Glu Thr His Ala
2945 2950

cac cgg ctc cag att tat cag caa taa acc agc cag ccg gaa ggg 9249
His Arg Leu Gln Ile Tyr Gln Gln Thr Ser Gln Pro Glu Gly
2955 2960 2965

ccg agc gca gaa gtg gtc ctg caa ctt tat ccg cct cca tcc agt 9294
Pro Ser Ala Glu Val Val Leu Gln Leu Tyr Pro Pro Pro Ser Ser
2970 2975 2980

cta tta att gtt gcc ggg aag cta gag taa gta gtt cgc cag tta 9339
Leu Leu Ile Val Ala Gly Lys Leu Glu Val Val Arg Gln Leu
2985 2990 2995

ata gtt tgc gca acg ttg ttg cca ttg cta cag gca tcg tgg tgt 9384
Ile Val Cys Ala Thr Leu Leu Pro Leu Leu Gln Ala Ser Trp Cys
3000 3005 3010

cac gct cgt cgt ttg gta tgg ctt cat tca gct ccg gtt ccc aac 9429
His Ala Arg Arg Leu Val Trp Leu His Ser Ala Pro Val Pro Asn

3015 3020 3025

gat caa ggc gag tta cat gat ccc cca tgt tgt gca aaa aag cgg 9474
Asp Gln Gly Glu Leu His Asp Pro Pro Cys Cys Ala Lys Lys Arg
3030 3035 3040

tta gct cct tcg gtc ctc cga tcg ttg tca gaa gta agt tgg ccg 9519
Leu Ala Pro Ser Val Leu Arg Ser Leu Ser Glu Val Ser Trp Pro
3045 3050 3055

cag tgt tat cac tca tgg tta tgg cag cac tgc ata att ctc tta 9564
Gln Cys Tyr His Ser Trp Leu Trp Gln His Cys Ile Ile Leu Leu
3060 3065 3070

ctg tca tgc cat ccg taa gat gct ttt ctg tga ctg gtg agt act 9609
Leu Ser Cys His Pro Asp Ala Phe Leu Leu Val Ser Thr
3075 3080 3085

caa cca agt cat tct gag aat agt gta tgc ggc gac cga gtt gct 9654
Gln Pro Ser His Ser Glu Asn Ser Val Cys Gly Asp Arg Val Ala
3090 3095 3100

ctt gcc cgg cgt caa tac ggg ata ata ccg cgc cac ata gca gaa 9699
Leu Ala Arg Arg Gln Tyr Gly Ile Ile Pro Arg His Ile Ala Glu
3105 3110 3115

ctt taa aag tgc tca tca ttg gaa aac gtt ctt cgg ggc gaa aac 9744
Leu Lys Cys Ser Ser Leu Glu Asn Val Leu Arg Gly Glu Asn
3120 3125

tct caa gga tct tac cgc tgt tga gat cca gtt cga tgt aac cca 9789
Ser Gln Gly Ser Tyr Arg Cys Asp Pro Val Arg Cys Asn Pro
3130 3135 3140

ctc gtg cac cca act gat ctt cag cat ctt tta ctt tca cca gcg 9834
Leu Val His Pro Thr Asp Leu Gln His Leu Leu Leu Ser Pro Ala
3145 3150 3155

ttt ctg ggt gag caa aaa cag gaa ggc aaa atg ccg caa aaa agg 9879
Phe Leu Gly Glu Gln Lys Gln Glu Gly Lys Met Pro Gln Lys Arg
3160 3165 3170

gaa taa ggg cga cac gga aat gtt gaa tac tca tac tct tcc ttt 9924
Glu Gly Arg His Gly Asn Val Glu Tyr Ser Tyr Ser Ser Phe
3175 3180 3185

ttc aat att att gaa gca ttt atc agg gtt att gtc tca tga gcg 9969
Phe Asn Ile Ile Glu Ala Phe Ile Arg Val Ile Val Ser Ala
3190 3195 3200

gat aca tat ttg aat gta ttt aga aaa ata aac aaa tag ggg ttc 10014
Asp Thr Tyr Leu Asn Val Phe Arg Lys Ile Asn Lys Gly Phe
3205 3210 3215

cgc gca cat ttc ccc gaa aag tgc cac ctg acg tct aag aaa cca 10059
Arg Ala His Phe Pro Glu Lys Cys His Leu Thr Ser Lys Lys Pro
3220 3225 3230

tta tta tca tga cat taa cct ata aaa ata ggc gta tca cga ggc cct 10107
Leu Leu Ser His Pro Ile Lys Ile Gly Val Ser Arg Gly Pro

3235 3240

ttc gtc tcg cgc gtt tcg gtg atg acg gtg aaa acc tct gac aca 10152
Phe Val Ser Arg Val Ser Val Met Thr Val Lys Thr Ser Asp Thr
3245 3250 3255

tgc agc tcc cgg aga cgg tca cag ctt gtc tgt aag cgg atg ccg 10197
Cys Ser Ser Arg Arg Arg Ser Gln Leu Val Cys Lys Arg Met Pro
3260 3265 3270

gga gca gac aag ccc gtc agg gcg cgt cag cgg gtg ttg gcg ggt 10242
Gly Ala Asp Lys Pro Val Arg Ala Arg Gln Arg Val Leu Ala Gly
3275 3280 3285

gtc ggg gct ggc tta act atg cgg cat cag agc aga ttg tac tga 10287
Val Gly Ala Gly Leu Thr Met Arg His Gln Ser Arg Leu Tyr
3290 3295 3300

gag tgc acc ata tgc ggt gtg aaa tac cgc aca gat gcg taa gga 10332
Glu Cys Thr Ile Cys Gly Val Lys Tyr Arg Thr Asp Ala Gly
3305 3310 3315

gaa aat acc gca tca ggc gcc att cgc cat tca ggc tgc gca act 10377
Glu Asn Thr Ala Ser Gly Ala Ile Arg His Ser Gly Cys Ala Thr
3320 3325 3330

gtt ggg aag ggc gat cgg tgc ggg cct ctt cgc tat tac gcc agc 10422
Val Gly Lys Gly Asp Arg Cys Gly Pro Leu Arg Tyr Tyr Ala Ser
3335 3340 3345

tgg cga aag ggg gat gtg ctg caa ggc gat taa gtt ggg taa cgc 10467
Trp Arg Lys Gly Asp Val Leu Gln Gly Asp Val Gly Arg
3350 3355 3360

cag ggt ttt ccc agt cac gac gtt gta aaa cga cgg cca gtg cc 10511
Gln Gly Phe Pro Ser His Asp Val Val Lys Arg Arg Pro Val
3365 3370

<210> 110
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 110
Lys Leu Tyr Ser
1

<210> 111
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350

peptide sequence

<400> 111
Ser Glu Leu Lys Asp His Ile
1 5

<210> 112
<211> 176
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 112
Asp Lys Ile Glu Ser Thr Cys Lys Met Phe Pro Ala Arg Trp His Asn
1 5 10 15

Tyr Leu Gln Cys Gly Gln Val Ile Lys Asp Ser Asn Leu Ile Cys Phe
20 25 30

Lys Thr Pro Leu Arg Pro Glu Leu Phe Ala Tyr Val Thr Ser Glu Glu
35 40 45

Asp Val Trp Thr Ala Glu Gln Ile Val Lys Gln Asn Pro Ser Ile Gly

50 55 60

Ala Ile Ile Asp Leu Thr Asn Thr Ser Lys Tyr Tyr Asp Gly Val His
65 70 75 80

Phe Leu Arg Ala Gly Leu Leu Tyr Lys Lys Ile Gln Val Pro Gly Gln
85 90 95

Thr Leu Pro Pro Glu Ser Ile Val Gln Glu Phe Ile Asp Thr Val Lys
100 105 110

Glu Phe Thr Glu Lys Cys Pro Gly Met Leu Val Gly Val His Cys Thr
115 120 125

His Gly Ile Asn Arg Thr Gly Tyr Met Val Cys Arg Tyr Leu Met His
130 135 140

Thr Leu Gly Ile Ala Pro Gln Glu Ala Ile Asp Arg Phe Glu Lys Ala
145 150 155 160

Arg Gly His Lys Ile Glu Arg Gln Asn Tyr Val Gln Asp Leu Leu Ile
165 170 175

<210> 113
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 113
Leu Ile Leu Phe Ala Phe Phe Asn Lys Tyr Phe Ile Leu Phe Ser Asn
1 5 10 15

Cys Cys Ala Ser Ser Ser Glu Pro Lys Leu Cys Phe Ala Cys Ser Val
20 25 30

<210> 114
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 114
Leu Val Ala Asp Gln Trp Arg Cys Ser Asn Arg Arg

1 5 10

<210> 115
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 115
Ala Gly Tyr Ser Pro Pro Gln Cys Trp Gln Arg
1 5 10

<210> 116
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 116
Cys Tyr Val Tyr Ala Phe Gly Phe Pro Arg Thr Ser Phe Gly Arg
1 5 10 15

<210> 117

<211> 33

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 117

Cys Arg Arg Ala Ser Arg Thr Thr Pro Asp Val Cys Ala Cys Pro Arg
1 5 10 15

Gly Ile Glu Pro Arg Asp Pro Thr Asn Pro Pro Leu Trp Gln Leu Asn
20 25 30

Arg

<210> 118

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350

peptide sequence

<400> 118

Pro Ala Arg Leu Phe Ser Ala Leu Phe Arg Leu Ser Phe Ala Trp Phe
1 5 10 15

Pro Gly Ser Arg Cys Thr Cys Gly Leu Asp Gln Ser
20 25

<210> 119

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 119

Pro Ala Asn Leu Trp Pro Arg Ser Ala Cys Pro
1 5 10

<210> 120

<211> 6

<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 120
Trp Gln Arg Cys Val Gln
1 5

<210> 121
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 121
Thr Leu Val Phe
1

<210> 122
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350

peptide sequence

<400> 122
Gln Val Pro Arg Phe Phe Ala Pro Pro Pro Leu Ala Ala Arg Leu Cys
1 5 10 15

Ala Arg

<210> 123
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 123
Met Ser Gln Ser Ala
1 5

<210> 124
<211> 11
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 124

Ser Pro Thr Val Cys Ser Pro Pro Pro Val Val
1 5 10

<210> 125

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 125

Ser Arg Asp Arg Thr Cys Arg Cys Arg Ala Leu Glu Glu Leu Leu Leu
1 5 10 15

Leu Lys Ala Ile Leu Val Ile Leu Trp Arg Lys Ala Ile Trp Thr Ser
20 25 30

<210> 126

<211> 7

<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 126
Ser Ala Glu Ser Arg Arg Ile
1 5

<210> 127
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 127
Ala Leu Tyr Ala Ala Ala Asn Thr Ala Gly Arg Pro Phe Ser Arg Arg
1 5 10 15

Cys

<210> 128

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 128

Gly Pro His Phe Gly Trp Ser Ala Gln Ile Thr Ile Cys Ile Tyr Cys
1 5 10 15

Leu His Glu His Val
20

<210> 129

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 129

Leu Tyr His Lys Leu Tyr Ile Leu Asn Cys
1 5 10

<210> 130
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 130
Arg Arg Pro Trp Pro Arg Thr Gly Pro Val Gly Arg Ala Leu Ala Arg
1 5 10 15

Thr Ala Gly

<210> 131
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 131
Thr Tyr Leu Leu Gln Ile

1 5

<210> 132
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 132
Ile Leu Gln Phe
1

<210> 133
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 133
Arg Glu Pro Phe
1

<210> 134
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 134
Tyr Thr Cys Val Asp Phe Ala Thr Thr Ile Val Phe
1 5 10

<210> 135
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 135
Arg Lys Leu Asn Leu Leu Trp
1 5

<210> 136

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 136

Ala Ile Ile Lys Tyr Gly Gly Thr Cys Ala Ala Thr Thr Leu Val Val
1 5 10 15

Met Asn Ala Asp Gly Ala Gly Leu Gly Ala Ser Gly
20 25

<210> 137

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 137

Asn Val Leu Arg Val Gln Arg Gly Lys His Arg Lys Ser Gln
1 5 10

<210> 138
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 138
Tyr Ser Phe Asp Leu His Ile Asn Gly Asp Phe Leu Asn Tyr Leu Ile
1 5 10 15

<210> 139
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 139
Ile Val Met Thr Pro Thr Thr Pro Arg Pro Arg
1 5 10

<210> 140

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 140

Leu Ala Ala Pro Arg Ala Val Arg
1 5

<210> 141

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 141

Arg Leu Pro Pro Cys Gly Arg Thr Arg Arg Ala Gly Gly Arg
1 5 10

<210> 142

<211> 54

<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 142
Pro Ala Ala Cys Arg Thr Arg Arg Thr Ser Ile Cys Thr Pro Asn Asp
1 5 10 15

Arg Arg Ala Lys Ala Arg Arg Pro Pro Ser Gly Asn Ile Gly Lys Phe
20 25 30

Glu Asn Ile Tyr Ser Trp Val Val Cys Ala Tyr Leu Ser Trp Arg Trp
35 40 45

Ala Cys Thr Ser Glu Arg
50

<210> 143
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350

peptide sequence

<400> 143
Phe Ala Cys Lys Pro Lys Leu Asn His Cys Asp
1 5 10

<210> 144
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 144
Asn Val Val His Pro Arg Phe
1 5

<210> 145
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 145

Ser Cys Arg Arg Leu Asn Arg Ala Ile Glu Ser Ser Asp Gln Ser Val
1 5 10 15

Glu

<210> 146

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 146

Cys Phe Leu Cys Ile Pro Glu Ser Ser Ala Ala Arg Ile Leu Thr Asn
1 5 10 15

<210> 147

<211> 40

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350

peptide sequence

<400> 147

Pro Ser Cys Lys Leu Val Ser Phe Asn Ala Thr Leu Ser Asn Asn Ile
1 5 10 15

Leu Cys Ile Ala Arg Gln Glu Leu Thr Met Arg Pro Leu Ser His Leu
20 25 30

Asn Thr Thr Met Ile Glu Ile Lys
35 40

<210> 148

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 148

Ile Ala Cys Asp Ala Thr Cys Thr Ile Cys Ala Arg Val Pro Ala Arg
1 5 10 15

Ala Leu Ile Val Ile Ser Phe Tyr Glu Ala Met Thr

20 25

<210> 149
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 149
Gln Arg Ser Arg Pro Lys Glu Leu Pro Thr Thr Lys Leu Pro Ser Met
1 5 10 15

Ser Val Thr Leu Lys Leu Leu Ser His Pro Ile Asp Arg
20 25

<210> 150
<211> 222
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 150

Ser Asn Gln Asp Arg Trp Cys Glu Lys Pro Arg Ser Met Ala Asn Ala
1 5 10 15

Ser Tyr Asn Val Trp Ser Pro Leu Ile Arg Ala Ser Cys Leu Asp Lys
20 25 30

Lys Ala Thr Tyr Leu Ile Asp Pro Asp Asp Phe Ile Asp Lys Leu Thr
35 40 45

Leu Thr Pro Tyr Thr Val Phe Tyr Asn Gly Gly Val Leu Val Lys Ile
50 55 60

Ser Gly Leu Arg Leu Tyr Met Leu Leu Thr Ala Pro Pro Thr Ile Asn
65 70 75 80

Glu Ile Lys Asn Ser Asn Phe Lys Lys Arg Ser Lys Arg Asn Ile Cys
85 90 95

Met Lys Glu Cys Val Glu Gly Lys Lys Asn Val Val Asp Met Leu Asn
100 105 110

Asn Lys Ile Asn Met Pro Pro Cys Ile Lys Lys Ile Leu Asn Asp Leu

115 120 125

Lys Glu Asn Asn Val Pro Arg Gly Gly Met Tyr Arg Lys Arg Phe Ile
130 135 140

Leu Asn Cys Tyr Ile Ala Asn Val Val Ser Cys Ala Lys Cys Glu Asn
145 150 155 160

Arg Cys Leu Ile Lys Ala Leu Thr His Phe Tyr Asn His Asp Ser Lys
165 170 175

Cys Val Gly Glu Val Met His Leu Leu Ile Lys Ser Gln Asp Val Tyr
180 185 190

Lys Pro Pro Asn Cys Gln Lys Met Lys Thr Val Asp Lys Leu Cys Pro
195 200 205

Phe Ala Gly Asn Cys Lys Gly Leu Asn Pro Ile Cys Asn Tyr
210 215 220

<210> 151
<211> 5
<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 151
Ile Ile Lys Gln Leu
1 5

<210> 152
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 152
Met Leu Asn Leu Phe Phe Ile Asn Asp Thr Asn Gln Thr Gln Gln Glu
1 5 10 15

His Leu

<210> 153

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 153

Leu Lys Thr Arg Ser Tyr Asn Arg

1 5

<210> 154

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 154

Asn His Phe Gln Met Ile His Ser

1 5

<210> 155

<211> 4

<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 155
Phe Ala Thr Ile
1

<210> 156
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 156
Phe Tyr Phe His Ile Asn
1 5

<210> 157
<211> 20
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 157

Thr Pro Cys Arg Leu Leu Leu Arg Ile Pro Ser Leu Phe His Phe Ser
1 5 10 15

Pro His Lys Asn
20

<210> 158

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 158

His Ser Tyr Tyr Arg Ile His Ile Cys Ile Tyr Arg Ile Glu
1 5 10

<210> 159

<211> 11

<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 159
Ile Phe Cys Cys His Lys Tyr Ile Cys Leu Phe
1 5 10

<210> 160
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 160
Tyr Arg Cys Ala
1

<210> 161
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 161
Phe Phe Cys Asn Leu Gln Gln Cys Tyr Phe Leu Val Val Leu Arg Ser
1 5 10 15

Val Leu Leu

<210> 162
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 162
Leu Leu Asn Leu Tyr Asn Gln
1 5

<210> 163
<211> 30
<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 163
Ile Trp Asp Arg Arg Phe Cys Thr Ile Cys Cys Arg His Ser Thr Gln
1 5 10 15

Leu Leu Leu Val Gln Leu His His Phe Leu Ala Ala Pro Asp
20 25 30

<210> 164
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 164
His Asn Phe Pro Lys Cys Cys Thr Asn Arg
1 5 10

<210> 165

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 165

Thr Lys Thr Val His Leu Pro Phe Leu Tyr Tyr Cys Leu Arg Ala Val
1 5 10 15

Val Cys Cys

<210> 166

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 166

Asp Ala Gln Thr Asn Ile Thr Asn Trp Lys Cys Leu Ser Ile Tyr Ser
1 5 10 15

Cys

<210> 167
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 167
Tyr His Gly Asp Asn
1 5

<210> 168
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 168
Asn Asp Asn His Leu Ala Asn Lys

1 5

<210> 169
<211> 331
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 169
Val Phe Tyr Cys Phe Arg Asn Ser Phe Val Ile Lys Lys Pro Ile Asn
1 5 10 15

Ile Pro Asp Tyr Ser Tyr Arg Pro Thr Ile Gly Arg Gly Ser Met Leu
20 25 30

Leu Val Asn Gln Ser His Gln Gly Phe Asn Lys Glu His Thr Ser Lys
35 40 45

Met Val Ser Ala Ile Val Leu Tyr Val Leu Leu Ala Ala Ala Ala His
50 55 60

Ser Ala Phe Ala Ala Asp Leu Gly Ser His His His His His His Ile

65 70 75 80

Glu Gly Arg Glu Phe Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu
85 90 95

Ala Lys Pro Gly Ala Ser Val Lys Leu Ser Cys Lys Ala Ser Gly His
100 105 110

Thr Phe Thr Ser Tyr Trp Met His Trp Val Lys Gln Arg Pro Gly Gln
115 120 125

Gly Leu Glu Trp Ile Gly Tyr Ile Asn Leu Ser Ser Gly Tyr Ile Lys
130 135 140

Tyr Asn Gln Glu Phe Lys Asp Lys Ala Thr Leu Thr Ala Asp Lys Ser
145 150 155 160

Ser Asn Thr Ala Tyr Met His Leu Ser Ser Leu Thr Tyr Glu Asp Ser
165 170 175

Ala Val Tyr Tyr Cys Ala Arg Ala Ala Gln Ala Thr Thr Phe Asp Tyr
180 185 190

Trp Gly Gln Gly Thr Thr Leu Thr Val Ser Ser Gly Gly Gly Gly Ser
195 200 205

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Val Met Ile Gln
210 215 220

Ser His Lys Phe Met Ser Thr Ser Val Gly Asp Arg Val Ser Ile Thr
225 230 235 240

Cys Lys Ala Ser Gln Asp Val Ser Thr Ala Val Gly Trp Tyr Gln Gln
245 250 255

Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg
260 265 270

His Thr Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp
275 280 285

Tyr Thr Leu Thr Ile Ser Ser Val Gln Ala Glu Asp Leu Ala Leu Tyr
290 295 300

Tyr Cys Gln Gln His Tyr Ser Thr Pro Pro Thr Phe Gly Gly Gly Thr

305 310 315 320

Lys Leu Gly Ile Lys Arg Ala Pro Gly Gly Cys
325 330

<210> 170
<211> 190
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 170
Arg Ser Asp Pro Phe Leu Gly Pro Gly Lys Asn Gln Lys Leu Thr Leu
1 5 10 15

Phe Lys Glu Ile Arg Asn Val Lys Pro Asp Thr Met Lys Leu Val Val
20 25 30

Gly Trp Lys Gly Lys Glu Phe Tyr Arg Glu Thr Trp Thr Arg Phe Met
35 40 45

Glu Asp Ser Phe Pro Ile Val Asn Asp Gln Glu Val Met Asp Val Phe

50 55 60

Leu Val Val Asn Met Arg Pro Thr Arg Pro Asn Arg Cys Tyr Lys Phe
65 70 75 80

Leu Ala Gln His Ala Leu Arg Cys Asp Pro Asp Tyr Val Pro His Asp
85 90 95

Val Ile Arg Ile Val Glu Pro Ser Trp Val Gly Ser Asn Asn Glu Tyr
100 105 110

Arg Ile Ser Leu Ala Lys Lys Gly Gly Gly Cys Pro Ile Met Asn Leu
115 120 125

His Ser Glu Tyr Thr Asn Ser Phe Glu Gln Phe Ile Asp Arg Val Ile
130 135 140

Trp Glu Asn Phe Tyr Lys Pro Ile Val Tyr Ile Gly Thr Asp Ser Ala
145 150 155 160

Glu Glu Glu Glu Ile Leu Leu Glu Val Ser Leu Val Phe Lys Val Lys
165 170 175

Glu Phe Ala Pro Asp Ala Pro Leu Phe Thr Gly Pro Ala Tyr
180 185 190

<210> 171
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 171
Asn Thr Ile His Cys Tyr
1 5

<210> 172
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 172
Ala Leu Asp Ser Val Arg Cys

1 5

<210> 173
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 173
Phe Thr Asp Asn Cys Cys Thr Tyr Phe Asn Asn Ser Leu Asn Leu
1 5 10 15

<210> 174
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 174
Ser Leu Gly Trp Tyr Val Arg Ala Lys Ile Lys
1 5 10

<210> 175
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 175
Phe Ser Ala Ser Leu Tyr Leu Asn Leu Asn Ile Lys Ser Ser Ile Asp
1 5 10 15

Leu

<210> 176
<211> 73
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 176
Asn Arg Phe Arg Leu Val Ser Asn Lys Gly Cys Phe Ser Glu Pro Met

1 5 10 15

Ala Gly Leu Ser Asn Gly Phe Ser Leu Asn Ala Thr Lys Leu Ala Lys
20 25 30

Ser Cys Ser Ser Asn Leu Ala Leu Ser Ile Phe Val Cys Val Leu Phe
35 40 45

Cys Asn Lys Gly Ser Thr Ser Phe Lys Ile Leu Cys Ala Phe Val Phe
50 55 60

Leu Ser Ser Leu Ser Leu Val Tyr Asn
65 70

<210> 177
<211> 196
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 177
Leu Asp Val Asn Thr Leu Asn Lys Ala Trp Thr Tyr Leu Thr Ser Gly

1 5 10 15

Val Leu Ala Leu Leu Gly Arg Leu Ser Ser Ser Ser Gln Pro Ser Ser
20 25 30

Leu Glu Val Ala Ser Glu Asp Asp Phe Ala Ile Ala Thr Arg Arg Leu
35 40 45

Leu Ile Val Ser Ala Asn Thr Ser Ala Ile Lys Phe Val Val Glu Leu
50 55 60

Phe Gly Ile Ile Ser Asp Cys Gly Arg Phe Trp Ala Gly Phe Asn Leu
65 70 75 80

Thr Val Pro Asp Phe Asn Ser Asp Asn Thr Leu Glu Ser Asp Gly Ala
85 90 95

Gly Gly Gly Asn Ile Ser Asp Gly Lys Ser Thr Asn Gly Gly Gly Gly
100 105 110

Gly Ala Asp Asp Lys Ser Thr Ile Gly Gly Gly Ala Gly Gly Ala Gly
115 120 125

Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Asp Ala Asp Gly Gly Leu
130 135 140

Gly Ser Asn Val Ser Leu Gly Asn Thr Val Gly Thr Ser Thr Ile Val
145 150 155 160

Leu Val Ser Gly Ala Val Phe Gly Leu Thr Gly Leu Arg Arg Val Arg
165 170 175

Phe Phe Ser Phe Leu Ile Ala Ser Asn Asn Cys Cys Leu Ser Ser Lys
180 185 190

Gly Ala Ala Gly
195

<210> 178
<211> 79
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 178

Gly Ser Val Gly Ile Gly Gly Ala Gly Gly Asn Ser Asp Ile Asp Gly
1 5 10 15

Gly Gly Gly Gly Gly Gly Ala Gly Met Leu Gly Thr Gly Glu Gly Gly
20 25 30

Gly Gly Gly Ala Ala Gly Ile Ile Cys Ser Gly Leu Val Cys Ser Arg
35 40 45

Thr Ile Val Gly Thr Gly Ala Gly Ala Ala Gly Cys Thr Thr Glu Gly
50 55 60

Arg Leu Leu Arg Gly Ser Ala Trp Gly Gly Gly Asn Ser Ile Leu
65 70 75

<210> 179

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 179

Leu Glu Tyr Lys Ser

1 5

<210> 180

<211> 22

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350 peptide sequence

<400> 180

Lys Ser Ala Ile Ser Ile Val Ile Ser Leu Ser Phe Thr Val Pro Ile

1 5 10 15

Phe Asn Asn Arg Ser Met

20

<210> 181

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350

peptide sequence

<400> 181
Ala Ile Val Leu
1

<210> 182
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 182
Arg Asp Cys Leu Lys Leu Arg Thr Pro Ile Thr Ser Leu Phe Ile Phe
1 5 10 15

Thr Thr Ala Leu
20

<210> 183
<211> 38
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 183

Trp Arg Asp Thr Ser Leu Ser Ser Thr Tyr Met Tyr Ala Leu Leu Ser
1 5 10 15

Lys Thr Ser Leu Ala Ser Phe Lys Ile Phe Lys Arg Thr Ser Leu Phe
20 25 30

Ser Thr Thr Val Leu Ser
35

<210> 184

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 184

Met Leu Phe Leu Ile Ile Cys Ala Ser Ala Val Ser Thr Arg Ser Lys
1 5 10 15

Asn

<210> 185
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 185
Cys Ala Ser Ile Leu Leu Phe Leu Leu Leu Asn Lys
1 5 10

<210> 186
<211> 206
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 186
Asp Cys Thr Asp Ser Tyr Leu Arg Phe Val Met Ala Thr Thr Asn Ala

1 5 10 15

Thr Leu Gln Thr Leu Val Gln Phe Tyr Glu Asn Cys Lys Asn Val Lys
20 25 30

Thr Arg Tyr Lys Ile Ile Asn Gly Arg Phe Gly Lys Ile Ser Ile Leu
35 40 45

Ser His Lys Pro Thr Ser Lys Leu Tyr Leu Gln Lys Thr Ile Ser Ala
50 55 60

His Asn Phe Asn Ala Asp Glu Ile Lys Val His Gln Leu Met Ser Asp
65 70 75 80

His Pro Asn Phe Ile Lys Ile Tyr Phe Asn His Gly Ser Ile Asn Asn
85 90 95

Gln Val Ile Val Met Asp Tyr Ile Asp Cys Pro Asp Leu Phe Glu Thr
100 105 110

Leu Gln Ile Lys Gly Glu Leu Ser Tyr Gln Leu Val Ser Asn Ile Ile
115 120 125

Arg Gln Leu Cys Glu Ala Leu Asn Asp Leu His Lys His Asn Phe Ile
130 135 140

His Asn Asp Ile Lys Leu Glu Asn Val Leu Tyr Phe Glu Ala Leu Asp
145 150 155 160

Arg Val Tyr Val Cys Asp Tyr Gly Leu Cys Lys His Glu Asn Ser Leu
165 170 175

Ser Val His Asp Gly Thr Leu Glu Tyr Phe Ser Pro Glu Lys Ile Arg
180 185 190

His Thr Thr Met His Val Ser Phe Asp Trp Tyr Ala Ala Cys
195 200 205

<210> 187
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
ppeptie sequence

<400> 187
His Thr Ser Cys
1

<210> 188
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 188
Pro Ala Val Arg Asn His Gly His Ser Cys Phe Leu Cys Glu Ile Val
1 5 10 15

Ile Arg Ser Gln Phe His Thr Thr Tyr Glu Pro Glu Ala
20 25

<210> 189
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350

peptide sequence

<400> 189
Ser Val Lys Pro Gly Val Pro Asn Glu
1 5

<210> 190
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 190
Ala Asn Ser His
1

<210> 191
<211> 61
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 191

Leu Arg Cys Ala His Cys Pro Leu Ser Ser Arg Glu Thr Cys Arg Ala
1 5 10 15

Ser Cys Ile Asn Glu Ser Ala Asn Ala Arg Gly Glu Ala Val Cys Val
20 25 30

Leu Gly Ala Leu Pro Leu Pro Arg Ser Leu Thr Arg Cys Ala Arg Ser
35 40 45

Phe Gly Cys Gly Glu Arg Tyr Gln Leu Thr Gln Arg Arg
50 55 60

<210> 192
<211> 141
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 192

Tyr Gly Tyr Pro Gln Asn Gln Gly Ile Thr Gln Glu Arg Thr Cys Glu
1 5 10 15

Gln Lys Ala Ser Lys Arg Pro Gly Thr Val Lys Arg Pro Arg Cys Trp
20 25 30

Arg Phe Ser Ile Gly Ser Ala Pro Leu Thr Ser Ile Thr Lys Ile Asp
35 40 45

Ala Gln Val Arg Gly Gly Glu Thr Arg Gln Asp Tyr Lys Asp Thr Arg
50 55 60

Arg Phe Pro Leu Glu Ala Pro Ser Cys Ala Leu Leu Phe Arg Pro Cys
65 70 75 80

Arg Leu Pro Asp Thr Cys Pro Pro Phe Ser Leu Arg Glu Ala Trp Arg
85 90 95

Phe Leu Ile Ala His Ala Val Gly Ile Ser Val Arg Cys Arg Ser Phe
100 105 110

Ala Pro Ser Trp Ala Val Cys Thr Asn Pro Pro Phe Ser Pro Thr Ala
115 120 125

Ala Pro Tyr Pro Val Thr Ile Val Leu Ser Pro Thr Arg

130 135 140

<210> 193
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 193
Asp Thr Thr Tyr Arg His Trp Gln Gln Pro Leu Val Thr Gly Leu Ala
1 5 10 15

Glu Arg Gly Met
20

<210> 194
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 194

Ala Val Leu Gln Ser Ser

1 5

<210> 195

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350 peptide sequence

<400> 195

Ser Gly Gly Leu Thr Thr Ala Thr Leu Glu Gly Gln Tyr Leu Val Ser

1 5 10 15

Ala Leu Cys

<210> 196

<211> 43

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350

peptide sequence

<400> 196

Ser Gln Leu Pro Ser Glu Lys Glu Leu Val Ala Leu Asp Pro Ala Asn
1 5 10 15

Lys Pro Pro Leu Val Ala Val Val Phe Leu Phe Ala Ser Ser Arg Leu
20 25 30

Arg Ala Glu Lys Lys Asp Leu Lys Lys Ile Leu
35 40

<210> 197

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 197

Ser Phe Leu Arg Gly Leu Thr Leu Ser Gly Thr Lys Thr His Val Lys
1 5 10 15

Gly Phe Trp Ser

20

<210> 198
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 198
Asp Tyr Gln Lys Gly Ser Ser Pro Arg Ser Phe
1 5 10

<210> 199
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 199
Ile Lys Asn Glu Val Leu Asn Gln Ser Lys Val Tyr Met Ser Lys Leu
1 5 10 15

Gly Leu Thr Val Thr Asn Ala
20

<210> 200
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 200
Ser Val Arg His Leu Ser Gln Arg Ser Val Tyr Phe Val His Pro
1 5 10 15

<210> 201
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 201
Leu Pro Asp Ser Pro Ser Cys Arg

1 5

<210> 202
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 202
Leu Arg Tyr Gly Arg Ala Tyr His Leu Ala Pro Val Leu Gln
1 5 10

<210> 203
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 203
Tyr Arg Glu Thr His Ala His Arg Leu Gln Ile Tyr Gln Gln
1 5 10

<210> 204
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 204
Thr Ser Gln Pro Glu Gly Pro Ser Ala Glu Val Val Leu Gln Leu Tyr
1 5 10 15

Pro Pro Pro Ser Ser Leu Leu Ile Val Ala Gly Lys Leu Glu
20 25 30

<210> 205
<211> 85
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 205
Val Val Arg Gln Leu Ile Val Cys Ala Thr Leu Leu Pro Leu Leu Gln

1 5 10 15

Ala Ser Trp Cys His Ala Arg Arg Leu Val Trp Leu His Ser Ala Pro
20 25 30

Val Pro Asn Asp Gln Gly Glu Leu His Asp Pro Pro Cys Cys Ala Lys
35 40 45

Lys Arg Leu Ala Pro Ser Val Leu Arg Ser Leu Ser Glu Val Ser Trp
50 55 60

Pro Gln Cys Tyr His Ser Trp Leu Trp Gln His Cys Ile Ile Leu Leu
65 70 75 80

Leu Ser Cys His Pro
85

<210> 206
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350

peptide sequence

<400> 206
Asp Ala Phe Leu
1

<210> 207
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
ppeptie sequence

<400> 207
Leu Val Ser Thr Gln Pro Ser His Ser Glu Asn Ser Val Cys Gly Asp
1 5 10 15

Arg Val Ala Leu Ala Arg Arg Gln Tyr Gly Ile Ile Pro Arg His Ile
20 25 30

Ala Glu Leu
35

<210> 208

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350 peptide sequence

<400> 208

Lys Cys Ser Ser Leu Glu Asn Val Leu Arg Gly Glu Asn Ser Gln Gly
1 5 10 15

Ser Tyr Arg Cys
20

<210> 209

<211> 38

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350 peptide sequence

<400> 209

Asp Pro Val Arg Cys Asn Pro Leu Val His Pro Thr Asp Leu Gln His
1 5 10 15

Leu Leu Leu Ser Pro Ala Phe Leu Gly Glu Gln Lys Gln Glu Gly Lys
20 25 30

Met Pro Gln Lys Arg Glu
35

<210> 210
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 210
Gly Arg His Gly Asn Val Glu Tyr Ser Tyr Ser Ser Phe Phe Asn Ile
1 5 10 15

Ile Glu Ala Phe Ile Arg Val Ile Val Ser
20 25

<210> 211
<211> 13
<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 211
Ala Asp Thr Tyr Leu Asn Val Phe Arg Lys Ile Asn Lys
1 5 10

<210> 212
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 212
Gly Phe Arg Ala His Phe Pro Glu Lys Cys His Leu Thr Ser Lys Lys
1 5 10 15

Pro Leu Leu Ser
20

<210> 213

<211> 69

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 213

Pro Ile Lys Ile Gly Val Ser Arg Gly Pro Phe Val Ser Arg Val Ser
1 5 10 15

Val Met Thr Val Lys Thr Ser Asp Thr Cys Ser Ser Arg Arg Arg Ser
20 25 30

Gln Leu Val Cys Lys Arg Met Pro Gly Ala Asp Lys Pro Val Arg Ala
35 40 45

Arg Gln Arg Val Leu Ala Gly Val Gly Ala Gly Leu Thr Met Arg His
50 55 60

Gln Ser Arg Leu Tyr
65

<210> 214

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 214

Glu Cys Thr Ile Cys Gly Val Lys Tyr Arg Thr Asp Ala
1 5 10

<210> 215

<211> 41

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 215

Gly Glu Asn Thr Ala Ser Gly Ala Ile Arg His Ser Gly Cys Ala Thr
1 5 10 15

Val Gly Lys Gly Asp Arg Cys Gly Pro Leu Arg Tyr Tyr Ala Ser Trp
20 25 30

Arg Lys Gly Asp Val Leu Gln Gly Asp
35 40

<210> 216
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector pACgp67-ScFv350
peptide sequence

<400> 216
Arg Gln Gly Phe Pro Ser His Asp Val Val Lys Arg Arg Pro Val
1 5 10 15

<210> 217
<211> 350
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic VH
nucleotide sequence

<400> 217
gaggtgaagc ttctccagtc tggaggtggc ctggtgcagc ctggaggatc cctgaaactc 60

tcctgtgcag cctcaggaat cgattttagt agatactgga tgagttgggt tcggcgggct 120
ccagggaaag gactagaatg gattggagaa attaatccag atagcagtac aataaactat 180
gcaccatctc taaaggataa attcatcatc tccagagaca acgccaaaaa tacgctgtac 240
ctgcaaatga gcaaagtgag atctgaggac acagcccttt attactgtgc aagaggactg 300
ggacagaact tgactactgg ggccaaggca ccactctcac agtctcctca 350

<210> 218
<211> 336
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic VL
nucleotide sequence

<400> 218
gatattgtga tgacgcaggc tgcattctcc aatccagtca ctcttggaac atcagcttcc 60
atctcctgca ggtctagtaa gagtctccta catagtaatg gcatcactta tttgtattgg 120
tatctgcaga agccaggcca gtctcctcag ctcctgattt atcagatgtc caaccttgcc 180
tcaggagtcc cagacaggtt cagtagcagt gggtcaggaa ctgatttcac actgagaatc 240
agcagagtgg aggctgagga tgtgggtgtt tattactgtg ctcaaaatct agaacttccg 300
tggacgttcg gtggaggcac caagctggaa atcaaa 336

<210> 219
<211> 354
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic VH
nucleotide sequence

<400> 219

gaggtgaagc tggtggagtc tggaggaggc ttggtacagc ctgggggttc tctgagtctc 60
tcctgtgcag cttctggatt caccttcact gattactcca tgaactgggt ccgccagcct 120
ccagggaaga cacttgagtg gttggctttt attagaaaca aagctaatgg ttacacagca 180
gagtacagtg catctgtgaa gggtcggttc tccatctcca gagataattc ccaaagcatc 240
ctctatcttc aaatgaatgc cctgagagct gaggacagtg ccacttatta ctgtgcaagg 300
ggatggtatg ctatggacta ctggggtcaa ggaacctcag tcaccgtctc ctca 354

<210> 220

<211> 351

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic VH
nucleotide sequence

<400> 220

gaggttctgc tgcagcagtc tgtggcagag cttgtgaggc caggggcctc agtcaagttg 60
tcctgcatag tttctgactt caacattaaa cacacctata tgcactgggt gaaacagagg 120
cctgatcagg gcctggagtg gattggaagg attgatcctg cgaatggtaa aactatatat 180
gccccgacgt tccagggcaa ggccactata actgcggaca catcctccaa cacagcctac 240
ctgcatttca gcagcctgac atctgaggac gctgccatct attactgtgc tagagctggg 300
gctggctact ttgactactg gggccaaggc accactctca cagtctcctc a 351

<210> 221

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic VL
nucleotide sequence

<400> 221

gacatcttgc tgactcagtc tccagccatc ctgtctgtga gtccaggaga aagagtcagt 60

ttctcctgca gggccagtca gaacattggc acaagtattt actggtatca gcaaagaaca 120

aatggttctc caaggcttct cataaagtat gtttctgagt ctatctctgg gatcccttcc 180

aggtttagtg gcagtggatc agggacagag tttactctta gcatcaacag tgtggagtct 240

gaagatattg cagattatta ctgtcaacaa agtcatagtt ggccgctcac gttcggtgct 300

gggaccaagc tggagctgaa a 321

<210> 222

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Illustrative
mitochondriotoxic motif

<400> 222

Lys Leu Ala Lys Leu Ala Lys Lys Leu Ala Lys Leu Ala Lys

1 5 10

<210> 223
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Illustrative peptide

<400> 223
Cys Asn Gly Arg Cys
1 5

<210> 224
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Illustrative peptide

<400> 224
Cys Gly Phe Glu Cys Val Arg Gln Cys Pro Glu Arg Cys
1 5 10

<210> 225

<211> 12

<212> PRT

<213> Human immunodeficiency virus type 1

<400> 225

His Phe Arg Ile Gly Cys Arg His Ser Arg Ile Gly

1 5 10

<210> 226

<211> 12

<212> PRT

<213> Human immunodeficiency virus type 1

<400> 226

His Phe Lys Ile Gly Cys Lys His Ser Lys Ile Gly

1 5 10

<210> 227

<211> 26

<212> PRT

<213> Human immunodeficiency virus type 1

<400> 227

His Phe Arg Ile Gly Cys Arg His Ser Arg Ile Gly Ile Ile Gln Gln

1 5 10 15

Arg Arg Thr Arg Asn Gly Ala Ser Lys Ser
20 25

<210> 228
<211> 26
<212> PRT
<213> Human immunodeficiency virus type 1

<400> 228
His Phe Lys Ile Gly Cys Lys His Ser Lys Ile Gly Ile Ile Gln Gln
1 5 10 15

Arg Arg Thr Arg Asn Gly Ala Ser Lys Ser
20 25

<210> 229
<211> 45
<212> PRT
<213> Human immunodeficiency virus type 1

<400> 229
Asp Thr Trp Thr Gly Val Glu Ala Leu Ile Arg Ile Leu Gln Gln Leu
1 5 10 15

Leu Phe Ile His Phe Arg Ile Gly Cys Arg His Ser Arg Ile Gly Ile
20 25 30

Ile Gln Gln Arg Arg Thr Arg Asn Gly Ala Ser Lys Ser

35 40 45

<210> 230
<211> 45
<212> PRT
<213> Human immunodeficiency virus type 1

<400> 230
Asp Thr Trp Thr Gly Val Glu Ala Leu Ile Arg Ile Leu Gln Gln Leu
1 5 10 15

Leu Phe Ile His Phe Lys Ile Gly Cys Lys His Ser Lys Ile Gly Ile
20 25 30

Ile Gln Gln Arg Arg Thr Arg Asn Gly Ala Ser Lys Ser
35 40 45

<210> 231
<211> 45
<212> PRT
<213> Human immunodeficiency virus type 1

<400> 231
Asp Thr Trp Thr Gly Val Glu Ala Ala Ile Arg Ile Leu Gln Gln Ala
1 5 10 15

Leu Phe Ile His Phe Arg Ile Gly Cys Arg His Ser Arg Ile Gly Ile
20 25 30

Ile Gln Gln Arg Arg Thr Arg Asn Gly Ala Ser Lys Ser
35 40 45

<210> 232
<211> 31
<212> PRT
<213> Human immunodeficiency virus type 1

<400> 232
Asp Thr Trp Thr Gly Val Glu Ala Leu Ile Arg Ile Leu Gln Gln Leu
1 5 10 15

Leu Phe Ile His Phe Arg Ile Gly Cys Arg His Ser Arg Ile Gly
20 25 30

<210> 233
<211> 31
<212> PRT
<213> Human immunodeficiency virus type 1

<400> 233
Asp Thr Trp Thr Gly Val Glu Ala Leu Ile Arg Ile Leu Gln Gln Leu
1 5 10 15

Leu Phe Ile His Phe Lys Ile Gly Cys Lys His Ser Lys Ile Gly
20 25 30

<210> 234

<211> 25

<212> PRT

<213> Candida albicans

<400> 234

Asp Ser His Ala Arg Lys Arg His His Gly Tyr Lys Arg Lys Phe His
1 5 10 15

Glu Lys His His Ser His Arg Gly Tyr
20 25

<210> 235

<211> 14

<212> PRT

<213> Vespula lewisii

<400> 235

Ile Asn Leu Lys Ala Leu Ala Ala Leu Ala Lys Lys Ile Leu
1 5 10

<210> 236

<211> 14

<212> PRT

<213> Homo sapiens

<400> 236

Leu Ser Arg Leu Leu Gly Lys Leu Pro Glu Leu Arg Thr Leu
1 5 10

<210> 237
<211> 14
<212> PRT
<213> Homo sapiens

<400> 237
Ala Thr Leu Asp Ala Leu Leu Ala Ala Leu Arg Arg Ile Gln
1 5 10

<210> 238
<211> 17
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: TOX peptide

<400> 238
Arg Asn Ile Ala Arg His Leu Ala Gln Val Gly Asp Ser Met Arg Asp
1 5 10 15

Arg

<210> 239

<211> 16

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: TOX peptide

<400> 239

Lys Lys Leu Ser Glu Cys Leu Lys Arg Ile Gly Asp Glu Leu Asp Ser
1 5 10 15

<210> 240

<211> 16

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: TOX peptide

<400> 240

Gly Gln Val Gly Arg Gln Leu Ala Ile Ile Gly Asp Asp Ile Asn Arg
1 5 10 15

<210> 241

<211> 9

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: TOX peptide

<400> 241

Ala Leu Arg Phe Thr Ser Ala Arg Arg

1 5

<210> 242

<211> 15

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: TOX peptide

<400> 242

Lys Thr His Val Lys Thr Ala Ser Leu Gly Leu Ala Gly Lys Ala

1 5 10 15

<210> 243

<211> 13

<212> PRT

<213> Homo sapiens

<400> 243

Asp Arg His Lys Gln Phe Trp Arg Tyr Phe Ala Gly Asn

1 5 10

<210> 244

<211> 13

<212> PRT

<213> Homo sapiens

<400> 244

Asp Lys Arg Thr Gln Phe Trp Arg Tyr Phe Ala Gly Asn

1 5 10

<210> 245

<211> 13

<212> PRT

<213> Homo sapiens

<400> 245

Asp Lys His Thr Gln Phe Trp Arg Tyr Phe Ala Gly Asn

1 5 10

<210> 246

<211> 13

<212> PRT

<213> Homo sapiens

<400> 246

Asp Arg His Lys Gln Phe Trp Arg Tyr Phe Pro Gly Asn

1 5 10

<210> 247

<211> 13

<212> PRT

<213> Homo sapiens

<400> 247

Asp Lys Arg Thr Gln Phe Trp Arg Tyr Phe Pro Gly Asn

1 5 10

<210> 248

<211> 13

<212> PRT

<213> Homo sapiens

<400> 248

Asp Lys His Thr Gln Phe Trp Arg Tyr Phe Pro Gly Asn

1 5 10

<210> 249

<211> 18

<212> PRT

<213> Homo sapiens

<400> 249

Leu Ala Ser Gly Gly Ala Ala Gly Ala Thr Ser Leu Cys Phe Val Tyr

1 5 10 15

Pro Leu

<210> 250

<211> 31

<212> PRT

<213> Homo sapiens

<400> 250

Asp Arg His Lys Gln Phe Trp Arg Tyr Phe Ala Gly Asn Leu Ala Ser
1 5 10 15

Gly Gly Ala Ala Gly Ala Thr Ser Leu Cys Phe Val Tyr Pro Leu
20 25 30

<210> 251

<211> 31

<212> PRT

<213> Homo sapiens

<400> 251

Asp Lys Arg Thr Gln Phe Trp Arg Tyr Phe Ala Gly Asn Leu Ala Ser
1 5 10 15

Gly Gly Ala Ala Gly Ala Thr Ser Leu Cys Phe Val Tyr Pro Leu
20 25 30

<210> 252

<211> 31

<212> PRT

<213> Homo sapiens

<400> 252

Asp Lys His Thr Gln Phe Trp Arg Tyr Phe Ala Gly Asn Leu Ala Ser
1 5 10 15

Gly Gly Ala Ala Gly Ala Thr Ser Leu Cys Phe Val Tyr Pro Leu
20 25 30

<210> 253

<211> 31

<212> PRT

<213> Homo sapiens

<400> 253

Asp Arg His Lys Gln Phe Trp Arg Tyr Phe Pro Gly Asn Leu Ala Ser
1 5 10 15

Gly Gly Ala Ala Gly Ala Thr Ser Leu Cys Phe Val Tyr Pro Leu
20 25 30

<210> 254

<211> 31

<212> PRT

<213> Homo sapiens

<400> 254

Asp Lys Arg Thr Gln Phe Trp Arg Tyr Phe Pro Gly Asn Leu Ala Ser
1 5 10 15

Gly Gly Ala Ala Gly Ala Thr Ser Leu Cys Phe Val Tyr Pro Leu
20 25 30

<210> 255

<211> 31

<212> PRT

<213> Homo sapiens

<400> 255

Asp Lys His Thr Gln Phe Trp Arg Tyr Phe Pro Gly Asn Leu Ala Ser
1 5 10 15

Gly Gly Ala Ala Gly Ala Thr Ser Leu Cys Phe Val Tyr Pro Leu
20 25 30

<210> 256

<211> 45

<212> PRT

<213> Human immunodeficiency virus type 1

<400> 256

Asp Thr Trp Thr Gly Val Glu Ala Leu Ile Arg Ile Leu Gln Gln Leu

1 5 10 15

Leu Phe Ile His Phe Arg Ile Gly Ser Arg His Ser Arg Ile Gly Ile
20 25 30

Ile Gln Gln Arg Arg Thr Arg Asn Gly Ala Ser Lys Ser
35 40 45

<210> 257
<211> 14
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: TOX peptide

<400> 257
Pro Ser Leu Arg Val Trp Arg Leu Cys Ala Arg Arg Leu Val
1 5 10

<210> 258
<211> 25
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: TOX peptide

<400> 258

Asn Leu Trp Ala Ala Gln Arg Tyr Gly Arg Glu Leu Arg Arg Met Ser
1 5 10 15

Asp Glu Phe Val Asp Ser Phe Lys Lys
20 25

<210> 259

<211> 25

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: TOX peptide

<400> 259

Gln Asp Ala Ser Thr Lys Lys Leu Ser Glu Cys Leu Lys Arg Ile Gly
1 5 10 15

Asp Glu Leu Asp Ser Asn Met Glu Leu
20 25

<210> 260

<211> 13

<212> PRT

<213> Homo sapiens

<400> 260

Asp Arg His Lys Gln Phe Trp Arg Tyr Phe Ala Gly Asn
1 5 10

<210> 261
<211> 13
<212> PRT
<213> Homo sapiens

<400> 261
Asp Lys Arg Thr Gln Phe Trp Arg Tyr Phe Ala Gly Asn
1 5 10

<210> 262
<211> 13
<212> PRT
<213> Homo sapiens

<400> 262
Asp Lys His Thr Gln Phe Trp Arg Tyr Phe Ala Gly Asn
1 5 10

<210> 263
<211> 18
<212> PRT
<213> Homo sapiens

<400> 263

Leu Ala Ser Gly Gly Ala Ala Gly Ala Thr Ser Leu Cys Phe Val Tyr
1 5 10 15

Pro Leu

<210> 264
<211> 31
<212> PRT
<213> Homo sapiens

<400> 264
Asp Arg His Lys Gln Phe Trp Arg Tyr Phe Ala Gly Asn Leu Ala Ser
1 5 10 15

Gly Gly Ala Ala Gly Ala Thr Ser Leu Cys Phe Val Tyr Pro Leu
20 25 30

<210> 265
<211> 31
<212> PRT
<213> Homo sapiens

<400> 265
Asp Lys Arg Thr Gln Phe Trp Arg Tyr Phe Ala Gly Asn Leu Ala Ser
1 5 10 15

Gly Gly Ala Ala Gly Ala Thr Ser Leu Cys Phe Val Tyr Pro Leu

20 25 30

<210> 266
<211> 31
<212> PRT
<213> Homo sapiens

<400> 266
Asp Lys His Thr Gln Phe Trp Arg Tyr Phe Ala Gly Asn Leu Ala Ser
1 5 10 15

Gly Gly Ala Ala Gly Ala Thr Ser Leu Cys Phe Val Tyr Pro Leu
20 25 30

<210> 267
<211> 16
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Antennapedia TOX peptide

<400> 267
Arg Gln Ile Lys Ile Thr Phe Gln Asn Arg Arg Met Lys Thr Lys Lys
1 5 10 15

<210> 268

<211> 14

<212> PRT

<213> Human immunodeficiency virus type 1

<400> 268

Ile Ile Gln Gln Arg Arg Thr Arg Asn Gly Ala Ser Lys Ser

1 5 10

<210> 269

<211> 12

<212> PRT

<213> Human immunodeficiency virus type 1

<400> 269

Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro

1 5 10

<210> 270

<211> 9

<212> PRT

<213> Human immunodeficiency virus type 1

<400> 270

Arg Lys Lys Arg Arg Gln Arg Arg Arg

1 5

<210> 271

<211> 12

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: pep-1 TOX peptide

<400> 271

Lys Glu Thr Trp Trp Glu Thr Trp Trp Thr Glu Trp
1 5 10

<210> 272

<211> 96

<212> PRT

<213> Human immunodeficiency virus type 1

<400> 272

Met Glu Gln Ala Pro Glu Asp Gln Gly Pro Gln Arg Glu Pro Tyr Asn
1 5 10 15

Glu Trp Thr Leu Glu Leu Leu Glu Glu Leu Lys Ser Glu Ala Val Arg
20 25 30

His Phe Pro Arg Ile Trp Leu His Asn Leu Gly Gln His Ile Tyr Glu
35 40 45

Thr Tyr Gly Asp Thr Trp Ala Gly Val Glu Ala Ile Ile Arg Ile Leu
50 55 60

Gln Gln Leu Leu Phe Ile His Phe Arg Ile Gly Cys Arg His Ser Arg
65 70 75 80

Ile Gly Val Thr Arg Gln Arg Arg Ala Arg Asn Gly Ala Ser Arg Ser
85 90 95

<210> 273
<211> 5
<212> PRT
<213> Human immunodeficiency virus type 1

<220>
<221> MOD_RES
<222> (2)
<223> Phe or Ser

<400> 273
His Xaa Arg Ile Gly
1 5

<210> 274
<211> 12
<212> PRT
<213> Human immunodeficiency virus type 1

<400> 274
His Phe Arg Ile Gly Cys Arg His Ser Arg Ile Gly

1 5 10

<210> 275

<211> 5

<212> PRT

<213> Human immunodeficiency virus type 1

<400> 275

His Phe Arg Ile Gly

1 5

<210> 276

<211> 5

<212> PRT

<213> Human immunodeficiency virus type 1

<400> 276

His Ser Arg Ile Gly

1 5

<210> 277

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Linker peptide

<400> 277

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser

1 5 10 15

<210> 278

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 278

Cys Asn Gly Arg Cys Gly Gly His Phe Arg Ile Gly Cys Arg His Ser

1 5 10 15

Arg Ile Gly

<210> 279

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic

peptide

<400> 279

Cys Asn Gly Arg Cys Gly Gly

1 5

<210> 280

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 280

Cys Asn Gly Arg Cys Gly Gly Asp Lys Arg Thr Gln Phe Trp Tyr Phe

1 5 10 15

Pro Gly Asn

<210> 281

<211> 24

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 281
Ala Cys Asp Cys Arg Gly Asp Cys Phe Cys Gly Gly His Phe Arg Ile
1 5 10 15

Gly Cys Arg His Ser Arg Ile Gly
20

<210> 282
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 282
Ala Cys Asp Cys Arg Gly Asp Cys Phe Cys Gly Gly
1 5 10

<210> 283
<211> 24
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 283

Ala Cys Asp Cys Arg Gly Asp Cys Phe Cys Gly Gly Asp Lys Arg Thr
1 5 10 15

Gln Phe Trp Tyr Phe Pro Gly Asn
20

<210> 284

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 284

His Phe Arg Ile Gly Cys Arg His Ser Arg Ile Gly
1 5 10

<210> 285

<211> 12

<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 285
Asp Lys Arg Thr Gln Phe Trp Tyr Phe Pro Gly Asn
1 5 10

<210> 286
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: 6-His tag

<400> 286
His His His His His His
1 5

<210> 287
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 287
gatcccatca tcaccaccac cac 23

<210> 288
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 288
attgaaggaa gagaattccc atg 23

<210> 289
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 289
gctgcagccc gggggatgtt aaa 23

<210> 290

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 290

cttccttcaa tgtggtggtg gtgatgatgg 30

<210> 291

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 291

gggctgcagc catgggaatt ct 22

<210> 292

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 292
gatctttaac atccccc 17

<210> 293
<211> 45
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<223> N-term biotin

<400> 293
Asp Thr Trp Thr Gly Val Glu Ala Leu Ile Arg Ile Leu Gln Gln Leu
1 5 10 15

Leu Phe Ile His Phe Arg Ile Gly Cys Arg His Ser Arg Ile Gly Ile
20 25 30

Ile Gln Gln Arg Arg Thr Arg Asn Gly Ala Ser Lys Ser
35 40 45

<210> 294
<211> 44

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<220>
<223> N-term biotin

<400> 294
Asp Thr Trp Thr Gly Val Glu Ala Leu Ile Arg Ile Leu Gln Gln Leu
1 5 10 15

Leu Phe His Phe Ala Ile Gly Cys Arg His Ser Ala Ile Gly Ile Ile
20 25 30

Gln Gln Arg Arg Thr Arg Asn Gly Ala Ser Lys Ser
35 40

<210> 295
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<220>

<223> N-term biotin

<400> 295

Cys Asn Gly Arg Cys Gly Gly His Phe Arg Ile Gly Cys Arg His Ser
1 5 10 15

Arg Ile Gly

<210> 296

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<220>

<223> N-term biotin

<400> 296

Cys Asn Gly Arg Cys Gly Gly His Phe Ala Ile Gly Cys Arg His Ser
1 5 10 15

Ala Ile Gly

<210> 297
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<223> N-term biotin

<400> 297
Cys Asn Gly Arg Cys Gly Gly Cys Asn Gly Arg Cys
1 5 10

<210> 298
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<223> N-term biotin

<400> 298

Gly Gly His Phe Arg Ile Gly Cys Arg His Ser Arg Ile Gly
1 5 10

<210> 299

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<220>

<223> N-term biotin

<400> 299

Cys Asn Gly Arg Cys Gly Gly
1 5

<210> 300

<211> 26

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<220>
<223> N-term biotin

<400> 300
Lys Glu Thr Trp Trp Glu Thr Trp Trp Thr Glu Trp Gly Gly His Phe
1 5 10 15

Arg Ile Gly Cys Arg His Ser Arg Ile Gly
20 25

<210> 301
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<220>
<223> N-term biotin

<400> 301
Ala Cys Asp Cys Arg Gly Asp Cys Phe Cys Gly Gly His Phe Arg Ile
1 5 10 15

Gly Cys Arg His Ser Arg Ile Gly
20

<210> 302
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<220>
<223> N-term biotin

<400> 302
Ala Cys Asp Cys Arg Gly Asp Cys Phe Cys Gly Gly His Phe Ala Ile
1 5 10 15

Gly Cys Arg His Ser Ala Ile Gly
20

<210> 303
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<220>

<223> N-term biotin

<400> 303

Cys Asn Gly Arg Cys Gly Gly Asp Lys Arg Thr Gln Phe Trp Arg Tyr

1 5 10 15

Phe Pro Gly Asn

20

<210> 304

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<220>

<223> N-term biotin

<400> 304

Cys Asn Gly Arg Cys Gly Gly Asp Lys Arg Thr Gln Phe Trp Arg Tyr

1 5 10 15

Phe Ala Gly Asn

20

<210> 305
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<220>
<223> N-term biotin

<400> 305
Cys Asn Gly Arg Cys Gly Gly Asp Arg His Lys Gln Phe Trp Arg Tyr
1 5 10 15

Phe Pro Gly Asn
20

<210> 306
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<220>
<223> N-term biotin

<400> 306
Cys Asn Gly Arg Cys Gly Gly Asp Lys His Thr Gln Phe Trp Arg Tyr
1 5 10 15

Phe Pro Gly Asn
20

<210> 307
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<220>
<223> N-term biotin

<400> 307
Gly Gly Asp Lys Arg Thr Gln Phe Trp Arg Tyr Phe Pro Gly Asn
1 5 10 15

<210> 308

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<220>

<223> N-term biotin

<400> 308

Gly Gly Asp Arg His Lys Gln Phe Trp Arg Tyr Phe Pro Gly Asn
1 5 10 15

<210> 309

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<220>

<223> N-term biotin

<400> 309

Gly Gly Asp Lys His Thr Gln Phe Trp Arg Tyr Phe Pro Gly Asn

1 5 10 15

<210> 310
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<223> N-term biotin

<400> 310
Cys Asn Gly Arg Cys Gly Gly
1 5

<210> 311
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>

<223> N-term biotin

<400> 311

Ala Cys Asp Cys Arg Gly Asp Cys Phe Cys Gly Gly Asp Lys Arg Thr
1 5 10 15

Gln Phe Trp Arg Tyr Phe Pro Gly Asn
20 25

<210> 312

<211> 25

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<220>

<223> N-term biotin

<400> 312

Ala Cys Asp Cys Arg Gly Asp Cys Phe Cys Gly Gly Asp Lys Arg Thr
1 5 10 15

Gln Phe Trp Arg Tyr Phe Ala Gly Asn
20 25

<210> 313
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<220>
<223> N-term biotin

<400> 313
Ala Cys Asp Cys Arg Gly Asp Cys Phe Cys Gly Gly Asp Arg His Lys
1 5 10 15

Gln Phe Trp Arg Tyr Phe Pro Gly Asn
20 25

<210> 314
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<220>

<223> N-term biotin

<400> 314

Ala Cys Asp Cys Arg Gly Asp Cys Phe Cys Gly Gly Asp Lys His Thr
1 5 10 15

Gln Phe Trp Arg Tyr Phe Pro Gly Asn
20 25

<210> 315

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<220>

<223> N-term biotin

<400> 315

Ala Cys Asp Cys Arg Gly Asp Cys Phe Cys Gly Gly
1 5 10

<210> 316

<211> 12

<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<220>
<223> N-term biotin

<400> 316
Ala Cys Asp Cys Arg Gly Asp Cys Phe Cys Gly Gly
1 5 10

<210> 317
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<220>
<223> N-term biotin

<400> 317
Arg Lys Lys Arg Arg Gln Arg Arg Arg Asp Lys Arg Thr Gln Phe Trp
1 5 10 15

Arg Tyr Phe Ala Gly Asn
20

<210> 318
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<223> N-term biotin

<400> 318
Arg Lys Lys Arg Arg Gln Arg Arg Arg Asp Lys Arg Thr Gln Phe Trp
1 5 10 15

Arg Tyr Phe Pro Gly Asn
20

<210> 319
<211> 22
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<220>
<223> N-term biotin

<400> 319
Arg Lys Lys Arg Arg Gln Arg Arg Arg Asp Arg His Lys Gln Phe Trp
1 5 10 15

Arg Tyr Phe Ala Gly Asn
20

<210> 320
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<220>
<223> N-term biotin

<400> 320
Arg Lys Lys Arg Arg Gln Arg Arg Arg Asp Lys His Thr Gln Phe Trp
1 5 10 15

Arg Tyr Phe Ala Gly Asn
20

<210> 321
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<223> N-term biotin

<400> 321
Arg Lys Lys Arg Arg Gln Arg Arg Arg
1 5

<210> 322
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>

<223> N-term biotin

<400> 322

Arg Lys Lys Arg Arg Gln Arg Arg Arg

1 5

<210> 323

<211> 27

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<220>

<223> N-term biotin

<400> 323

Arg Lys Lys Arg Arg Gln Arg Arg Arg Leu Ala Ser Gly Gly Ala Ala

1 5 10 15

Gly Ala Thr Ser Leu Cys Phe Val Tyr Pro Leu

20 25

<210> 324

<211> 28

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<220>
<223> N-term biotin

<400> 324
Arg Lys Lys Arg Arg Gln Arg Arg Arg Gly Ala Trp Ser Asn Val Leu
1 5 10 15

Arg Gly Met Gly Gly Ala Phe Val Leu Val Leu Tyr
20 25

<210> 325
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<220>
<223> N-term biotin

<400> 325

Arg Lys Lys Arg Arg Gln Arg Arg Arg

1 5